









# AN INDIAN MEDICAL REVIEW

BY

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### **Introduction.**

The Provinces and States of India publish annual records of the activities of their Medical and Public Health Departments, which, in so far as they relate to the incidence of disease, vital and health statistics, are summarised in the Annual Report of the Public Health Commissioner with the Government of India. If this Review of the medical organisations of all-India reproduces information contained in the latter report, it is because the Medical and Health Departments are both concerned with the same problems which affect the health of India. Major-General Sir John Megaw between 1931 and 1933 published several papers concerning medical administration in India, while Sir Cuthbert Sprawson, in 1935, wrote a valuable note on the medical schools. These have been consulted in compiling this Review, while my thanks are also due to the Administrative Officers of Provinces, to Dr. A. G. Young, Editor of the Journal of the Christian Medical Association of India, and others who have supplied material for its publication. The preparation and analysis of the statistics has been done under the supervision of Mr. Khushi Ram, Superintendent of the Medical Section of my office, and I also gratefully acknowledge the help of Major A. N. Chopra, I.M.S., in reviewing and correcting proofs. The views expressed on the statistics and information collected are purely personal.

E. W. C. B.



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## CHAPTER I.

### General.

#### 1. ADMINISTRATIVE ORGANISATION.

An account of the history of the medical and health organisation in India will be found in Section VI of the "*Souvenir*", 1927 (which includes a short note on the indigenous systems), edited by Colonel (now Sir) Richard Christophers, and in Section II of Major General Sir J. D. Graham's "*Health Organisation in British India*", 1927.

2. The general constitutional position under the Government of India Act, 1935, is that while public health and hospitals and dispensaries are provincial legislative subjects, the Central Government has responsibilities for medical research, port quarantine, higher medical education, and for medical and health affairs of areas under its direct administrative control. The Director General, Indian Medical Service, is the principal medical adviser to the Government of India in the Department of Education, Health and Lands. He is also the head of the Indian Medical Service and the Indian Medical Department (Military Assistant and Sub-Assistant Surgeons) and controls the Medical Store Depots, a brief account of which is included in Chapter X of this book. He is assisted by a Deputy Director General, an Assistant Director General, and, in matters relating to public health and research, by the Public Health Commissioner, who is the technical adviser to the Government of India in public health matters. The Public Health staff also includes a Deputy Public Health Commissioner and a Statistical Officer.

3. In the Presidencies of Bombay, Madras and Bengal, the medical services are administered by Surgeons General, while the corresponding position is held by the Inspectors General of Civil Hospitals in other provinces, except the two newly created provinces of Sind and Orissa where the heads of the medical departments are designated as Director of Health Services and Inspector General of Prisons and Director of Health and Inspector General of Prisons, respectively. The chief administrative medical head is the medical adviser to the local Government in all provincial medical matters.

4. Provinces are divided into divisions, each of which consists of several districts, the average population of which may roughly be taken as one million. Each district has a headquarters for all Government departments, one of which is the 'medical' presided over by a Civil Surgeon. Besides managing the headquarters hospitals (i.e., Civil and Police Hospitals, etc.), he controls in his area several branch hospitals and numerous dispensaries staffed by officers of the Provincial and Subordinate Medical Services; his work is largely in the hospital, though much of it is administrative. The responsibility of the Civil Surgeon for public

health varies, in the different provinces of India, and while in all there is a Director of Public Health, it is only Madras, Bengal, United Provinces, Punjab, Bihar and Orissa that public health has been placed under the control of whole time District Public Health Officers.

5. In Madras there is a Chief Leprosy Officer, while Group Leprosy Officers are in charge of several adjacent districts and, according to Sir Frank Connor's note on the Madras Medical Department, it has been proposed to increase their number so as to allow of each heavily infected district being provided with a separate Leprosy Officer.

6. Propaganda and survey in regard to Leprosy have necessitated the appointment of a Leprosy Officer each in Bengal and the Punjab. In the Central Provinces there are three Sub-Assistant Health Officers for the purpose.

7. The appointment of special officers for Tuberculosis is under consideration in the various provinces. Bihar has given lead in the matter by appointing one officer of the rank of Assistant Director of Public Health on the staff of the Inspector General of Civil Hospitals.

## 2. MEDICAL PROFESSION.\*

It is estimated that there are 35,000—40,000 qualified doctors now practising in India, and, although a proportion of 1 doctor to roughly 10,000 of the population would appear to be very inadequate, it is a fact that unemployment has become a serious problem among the younger members of the profession. Careful enquiries, however, show that in many towns the proportion is as high as 1 to 1,000 and that it is the disinclination of members of an educated profession to settle in rural areas which is responsible for this apparent overcrowding, a problem which is not confined to India but common to all agricultural countries. A doctor who has had a long, expensive and scientific education is very unwilling to choose a career in a remote country district where there are few amenities, no educated society, no education facilities for his family, and, in India, on account of the poverty of the people, few fees to be earned. Better communications, better roads and mechanical transport are changing the conditions of medical practice as rapidly as they are influencing other aspects of Indian life, and in many areas the doctor with initiative is able to exploit the countryside from his urban residence. The question of inducing doctors by the provision of subsidies or other plans in rural areas is receiving the attention of provincial medical departments, and the methods employed and recommended are described in detail in Section 16 "Rural Medical Relief" of Chapter II. The position, to quote the "Statesman",\* is that "The villages offer the practice and the experience. They do not offer the fees nor the opportunity of discussing difficulties with other doctors, nor the opportunity of keeping in touch with what is done in hospitals. For the young doctor, who is not troubled about the need of earning an income commensurate with the length and cost of his education, who has something of a missionary

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\*Delhi edition, dated the 1st May, 1938.

spirit and has no particular yearning for the company of his own kind, the village is an admirable place to work in if he can bring himself to forgo the close contacts and associations by which alone he can steadily become more proficient in his calling. Not many, we must infer, are so endowed. The doctor who does work in the villages is quite likely to find that, after all his years of study, a charm or a line of ancient verse is regarded as a more reliable help in time of trouble. It is a difficult situation not to be put right by good advice alone".

2. It is only in provinces where a Council of Medical Registration exists that it is possible to give the number of doctors registered and these are as follows:—

Madras . . . . .	6,085
Bombay . . . . .	6,378
Bengal . . . . .	9,019
United Provinces . . . . .	3,041
Punjab . . . . .	4,558
Bihar . . . . .	3,045
Assam . . . . .	1,166

3. The number of missionary doctors working in India, according to the estimate given in the May 1937 issue of the Journal of the Christian Medical Association of India, Burma and Ceylon, is 740.

### 3. MEDICAL SERVICES.

	British.	Indian.	Total.
(a) I. M. S. Officers (as on 1st April 1938)—			
In civil employ . . . . .	196	115	311
In military employ . . . . .	207	149	356
Grand Total . . . . .	403	264	667

(b) R. A. M. C. Officers (as on 1st April 1938)— . . . . . 275

	Civil.	Military.	Total.
(c) Indian Medical Department (as on 1st April 1938)—			
Military Assistant Surgeons . . . . .	105	381	486
Military Sub-Assistant Surgeons . . . . .	85	60	685

	Assistant Surgeons.	Sub-Assistant Surgeons.
(v) Provincial Civil Medical Services—		
Madras . . . . .	225	530
Bombay . . . . .	69	360
Bengal . . . . .	171	287
United Provinces . . . . .	134	345
Punjab . . . . .	167	551
Bihar . . . . .	100	83
Central Provinces . . . . .	69	310
Assam . . . . .	40	194
Sind . . . . .	14	96
Orissa . . . . .	29	95
North-West Frontier Province . . . . .	20	106
Delhi . . . . .	10	31
Ajmer Merwara . . . . .	2	13
Baluchistan . . . . .	4	40

Europeans. Indians.

(e) Railway Medical Services—		
Superior medical personnel . . . . .	33	52
Subordinate medical personnel . . . . .	8	1,718
Total . . . . .	41	1,770

(f) Doctors employed in Public Health Duties (as on 1st April 1938)—

Madras . . . . .	150
Bombay . . . . .	36
Bengal . . . . .	413
United Provinces . . . . .	180
Punjab . . . . .	109
Bihar . . . . .	36
Central Provinces . . . . .	74
Assam . . . . .	130
Sind . . . . .	11
Orissa . . . . .	23
North-West Frontier Province . . . . .	12
	(Whole time).
	3
	(Part-time).
Delhi . . . . .	17
	(Whole time).
	8
	(Part-time).
Ajmer Merwara . . . . .	2
Coorg . . . . .	2

## CHAPTER II.

### Hospitals and Dispensaries.

#### 1. ADVISORY COMMITTEES FOR HOSPITALS.

Advisory Committees for hospitals are now a feature of medical administration in all provinces, though their scope and composition varies, and except in Delhi Province they do not exist in the Centrally Administered Areas.

The principal function of these Committees is to keep the head of the provincial medical department and the local Government informed of the needs of the hospitals as viewed by the public and they aim at maintaining touch with the Medical Department on the one hand and the public on the other. They enquire into the working of the institutions and advise on all matters connected with the welfare of the hospital, the comfort and well-being of the patients and in some cases management and control of accounts. These Committees have no executive authority, for the entire supervision and management of the institution and its establishment are in the hands of the Medical Officer in charge of the hospital subject to the control of the Provincial Administrative Medical Officer.

2. In a note on the Madras Medical Department, Major-General Sir Frank Connor writes "The reports received on the working of these Advisory Committees during my term of office show, with few exceptions, that these committees have not been working satisfactorily. The District Medical Officers complain that it is difficult at many meetings to get a quorum. General apathy is one reason for this state of affairs, but another important reason is the failure of the administration to carry out the majority of the recommendations made by them; this results very naturally in their losing interest. The reason for this failure is, in the majority of cases, the inadequacy of finance made available by Government.

"An improvement in the working of Advisory Committees in the City of Madras is noticeable. Non-official members have been taking greater interest in ascertaining the requirements of hospitals, with the result that many useful suggestions have been made and accepted by the Surgeon-General. It is to be hoped that this improvement will extend to mofussil areas and that more money will soon be available to activate proposals for improvements made by Advisory Committees."

3. The Visiting Committees for State institutions in Bengal are appointed by Government and consist of officials as well as non-officials. The Managing Committees for private hospitals are appointed with the sanction of the Commissioner of the Division and consist of non-officials except for the District Magistrate or Sub-Divisional Officer and Civil Surgeon who are *ex-officio* members.

4. The Advisory Committees for Bombay City hospitals consist of seven members nominated by the Surgeon General, with the Medical Officer in charge of the hospital as Secretary. In the mofussil the Civil Surgeon is the Chairman, with six other members of whom at least three should be Indians and two ladies. One of these six members is nominated by the District Board and another by the Municipality. The tenure of members is one year. The Committees are appointed for Government hospitals at provincial headquarters and district civil hospitals with accommodation for 50 or more beds. The decisions of the Committee are acted upon by the Medical Officer and where he has no power to give effect to them, referred to the Surgeon General with the Government of Bombay.

5. In the Punjab a committee consisting of non-official visitors, nominated by Government, is appointed for various hospitals in Lahore. Of these at least four are ladies. In the districts for every provincialised hospital there is a committee consisting of two members nominated by the Municipal Committee, two members nominated by the District Board, three members nominated by the Deputy Commissioner of the District and the members of the Provincial Legislative Council from the district. The Civil Surgeon of the district acts as President. The tenure of membership is one year.

6. In the Central Provinces and Berar the composition of the Boards of Management for provincialised hospitals and Dispensary Fund Committees for local fund hospitals varies from place to place, but the salient feature is that they consist of a few *ex-officio* and a few non-official members nominated by the Local Government or the Commissioner of the division concerned.

7. The Managing Committees in Bihar are nominated by Government for Government hospitals and by local bodies for local fund institutions subject to the approval of the Commissioner of the division concerned in the latter case. Usually the District Magistrate, the Civil Surgeon and the Sadr Sub-Divisional Officer are *ex-officio* members of each committee. The Committees in Orissa are formed on the same lines as in Bihar.

8. Advisory Committees in Assam consist of the Deputy Commissioner of the district as President, Civil Surgeon as Vice-President, two members nominated by the Municipal Board, two nominees of the Local Board and two members nominated by the Deputy Commissioner.

9. The Advisory Committee for the Irwin Hospital, New Delhi, is nominated by the Chief Commissioner, Delhi, and consists of the Chief Medical Officer, Delhi, the Civil Surgeon, New Delhi, an Executive Engineer of the Public Works Department, a representative of the Lady Hardinge Medical College, two nominees of the Delhi Municipal Committee, one nominee of the New Delhi Municipal Committee, the Chief Health Officer, one lady each nominated by the Delhi and New Delhi Municipal Committees, one non-official medical practitioner of the Delhi Province, the Superintendent of Nurses and the Senior Assistant Surgeon of the Irwin Hospital.

10. The Advisory Committee for the Lady Reading Hospital, Peshawar, consists of the Inspector General of Civil Hospitals, North-West Frontier Province, as Chairman, the Civil Surgeon, Peshawar, as Secretary and three members of the North-West Frontier Province Legislative Assembly and three nominees of the Municipal Committee, Peshawar, as members.

11. In Sind there are Advisory Committees at the Civil Hospitals, Hyderabad, Sukkur and Mirpurkhas. The Advisory Committee consists of the Civil Surgeon as Chairman and six other members of whom at least three shall be Indians and two ladies, who shall hold office for a period of one year. The District Local Board and the Municipality of the district is entitled to send one representative each to serve on the Committee.

12. The general consensus of opinion is that these committees serve a useful purpose, that they offer useful suggestions for improvement in the efficiency of the hospital staff and often help in raising donations and procuring articles or special comfort for the patients.

## 2. AVERAGE AREA AND POPULATION SERVED BY EACH HOSPITAL OR DISPENSARY.

Province.	Total number of hospitals and dispensaries in the province.	Average area served by each hospital or dispensary. (Sq. miles).	Average population served by each hospital or dispensary.
1	2	3	4
Madras . . . . .	1,134	126	41,217
Bombay . . . . .	429	180	41,940
Bengal . . . . .	1,449	540	34,585
United Provinces . . . . .	597	178	81,087
Punjab . . . . .	896	111	26,318
Central Provinces . . . . .	343	291	45,212
Bihar . . . . .	528	131	61,310
Assam . . . . .	343	160	25,138
Sind . . . . .	108	429	35,991
Orissa . . . . .	164	145	32,355
Delhi . . . . .	24	24	26,510
North-West Frontier Province .	114	118	21,272
Baluchistan . . . . .	41	1,327	11,305
Ajmer-Merwara . . . . .	10	271	56,029
Coorg . . . . .	11	145	14,848



### 3. EXPENDITURE ON MEDICAL RELIEF.

Province.	Expenditure on Medical Relief during 1936.					
	Per Capita.			Per square mile.		
	1	2	3			
		Rs. A. P.		Rs. A. P.		
Madras . . . . .		0 2 7		53 2 5		
Bombay . . . . .		0 4 9		65 7 0		
Bengal . . . . .		0 2 1		84 0 0		
United Provinces . . . . .		0 1 0		29 0 4		
Punjab . . . . .		0 5 7		51 12 9		
Central Provinces and Berar . . . . .		0 1 5		13 11 10		
Bihar . . . . .		0 1 3		35 11 8		
Assam . . . . .		0 1 8		14 5 5		
Sind . . . . .		0 4 0		20 15 3		
Orissa . . . . .		0 1 6		23 5 8		
Delhi . . . . .		1 2 5		1,272 0 0		
North-West Frontier Province . . . . .		0 6 3		70 0 0		
Baluchistan . . . . .		0 8 8		4 9 9		
Ajmer-Merwara . . . . .		0 4 11		63 0 10		
Coorg . . . . .		0 11 2		71 9 7		

### 4. RULES REGULATING GRANTS-IN-AID TO HOSPITALS AND DISPENSARIES.

**Madras.**—Grants-in-aid are given to private special medical institutions which are in charge of medical practitioners registered under the Madras Medical Registration Act VI of 1914, and are classed as—

1. Maintenance grants.
2. Capitation grants.
3. Building grants.

Maintenance grants are sanctioned by the Surgeon General with the Government of Madras, annually after he has satisfied himself that the institution is popular and run on satisfactory lines. Capitation grants are given to private Leper Asylums and are payable half-yearly subject to

the fulfilment of certain conditions prescribed by Government. The grant is sanctioned by the Surgeon General with the Government of Madras, on the recommendation of the District Medical Officer. Building grants are sanctioned by Government for institutions run by registered medical practitioners provided the Surgeon General is satisfied about the necessity of the grant. In case where the cost of the proposed work exceeds Rs. 50,000, the Surgeon General forwards the plans and the estimates to Government. The amount of grant is usually equal to one-half of the total cost of the building.

Grants to Local Boards and Municipalities are maintenance grants given as fixed grants, half grants, percentage contributions and building grants. Half grants are equal to half the cost (initial and recurring) of the hospital or dispensary while Government pays the entire salaries of civil Assistant Surgeons or Sub-Assistant Surgeons. Percentage contributions are given to institutions located at stations other than at Taluk Headquarters. The Government contributes 22 per cent. and 10 per cent. of pay and allowances respectively of civil Assistant Surgeons in Local Boards, and 17½ per cent. and 5 per cent. of their pay and allowances respectively in Municipalities in consideration of work done by those institutions for the Government. Half grants are given to local bodies for medical buildings if they are considered to be necessary and expedient in the public interest.

**Bombay.**—Applications for grants-in-aid to old and new dispensaries are made by or through the Collector of the district whose report, together with that of the Civil Surgeon, is submitted to the Surgeon General through the Commissioner concerned and the Director of Public Health. Such grants do not exceed 1/3rd of the total expenditure or one-half of the net cost of maintenance of the dispensary arrived at after deducting private donations or endowments from the total expenditure. Grants to dispensaries in municipal areas are not usually given. Non-recurring grants not exceeding 50 per cent. of the total cost are given for the construction of a dispensary building if its necessity is acknowledged and the plans of the proposed work approved by Government, and the initial supply of all necessary surgical and other instruments is made free. The grant-in-aid to a dispensary is subject to revision after every 5 years and is conditional on the observance of certain conditions laid down by Government.

The Civil Surgeons concerned are responsible for the scrutiny of the accounts of dispensaries.

**Bengal.**—Applications for grants-in-aid to hospitals and dispensaries are received by Government through the District Magistrate and the Commissioner of the Division and the matter is considered on the merit of each case. Government grants amounting to Rs. 250 and Rs. 500 respectively are generally given to a number of village and Thana dispensaries.

**United Provinces.**—Grants are of two kinds—(1) conditional and (2) unconditional. Conditional grants are given for specific purposes and must necessarily be expended on specific items. A grant is unconditional

when the only condition attaching to it is the continued active existence of the local body or private institution to which it is given.

Administrative departments of Government and subordinate authorities empowered to sanction grants, specify conditions or quote rules or orders under which the grant is sanctioned and supply a copy of such order of sanction to the Examiner, Local Fund Accounts. In case of non-compliance with the stipulated conditions the grants are required to be refunded in part or in entirety at the discretion of the sanctioning authority. The Examiner, Local Fund Accounts, has to record in his audit report a note to the effect that the grantee has spent the grant in accordance with the terms attaching to it, and has to report to Government in the Finance Department instances of diversion of large unspent balances.

**Punjab and Central Provinces and Berar.**—The grants-in-aid are given in various forms, *viz.*, money, free buildings, free supply of medicines, free services of the whole or part of the establishment and the like. They are given to private hospitals and dispensaries and dispensaries maintained by religious societies out of (1) municipal and district board funds and (2) provincial funds subject to budget provision. Grants are neither given nor withheld on the ground of religious teaching being combined with medical relief. The grantees must comply with certain conditions imposed by Government and their failure to do so may involve reduction or withdrawal of the grant after an enquiry by the Civil Surgeon concerned. The amount of grants is determined with reference to the efficiency of the medical institution, and the Inspector General of Civil Hospitals of the province is the final authority in the matter.

Grants-in-aid to local bodies are either for general or specific purposes. The former are unconditional and are given to strengthen the resources of the local body, while the latter are to be expended within reasonable time on the object for which the grant is made. Grants for special works such as buildings, are made as and when the local body is ready to start operations, but if the amount is large, it is paid in instalments according to the needs of the work. Unspent portion of the grant or portion diverted to purposes other than the specified ones must be refunded to Government.

In the case of the Punjab, grants-in-aid to local bodies and charitable mission societies are given for only opening and equipping hospitals or dispensaries and the Government do not in any way accept responsibility for their maintenance.

**Assam.**—Applications for grants-in-aid for the establishment or maintenance of hospitals and dispensaries are received by the Inspector General of Civil Hospitals, Assam, who forwards them to the Local Government with his own recommendations. The aid is usually given if there is a prospect of relief to a substantial number of people through the dispensary, if arrangements for provision of suitable buildings and staff, etc., are made and provided the Inspector General of Civil Hospitals feels

satisfied that adequate allotments are guaranteed by the Local Board under the different heads of expenditure, recurring as well as non-recurring, for the establishment and maintenance of the dispensary.

**Bihar and Orissa.**—There are no specific rules issued by Government regarding grants-in-aid. Grants are regulated in accordance with the needs of the institutions subject to funds being available.

**Sind.**—The rules regulating grants-in-aid to hospitals and dispensaries are the same as are in force in the Bombay Presidency.

**North-West Frontier Province.**—There are no specific rules or orders regarding grants-in-aid in the Province.

## 5. FEES CHARGED FROM NON-INDIGENT PATIENTS.

Poor and indigent patients, both indoor and outdoor, are given free medical and surgical treatment in all provinces in India. They are not charged any fees, nor are they required to pay for any special treatment or for drugs not ordinarily available at the hospital. Patients with a monthly income of less than Rs. 50 in Madras, 30 in Bombay, 150 in the Punjab, 100 in Delhi and with an annual income of less than Rs. 2,000 in the United Provinces and Central Provinces fall into the category of those who are exempted from hospital fees.

2. Excepting Bengal, fees are charged from well-to-do patients in all provinces. As a rule, they are not admitted into the general wards, excepting in Madras and Bombay where, if so admitted, they have to pay Re. 0-8-0 to Rs. 2-8-0 and Re. 0-6-0 to Re. 1 per diem respectively.

3. Fees levied from patients for accommodation in special and family wards vary in accordance with their monthly income. They range from Rs. 5 to Rs. 10 in Madras, Re. 1 to Rs. 5 in Bombay, Re. 1 from Indians and Rs. 3 to Rs. 10 from Europeans in the United Provinces, Rs. 2 to Rs. 10 in the Punjab, Rs. 2-8-0 to Rs. 5 in Delhi, Rs. 3 to Rs. 14 from Europeans and Rs. 2 to Rs. 3 from Indians in Bihar, and Re. 0-12-0 to Rs. 6 in the North-West Frontier Province. These fees generally cover the cost of medicines, dressings, nursing, etc., ordinarily provided by the hospital, but if procured from outside, they have to be paid for by the patients. The rates of operation fees, where levied, are fixed and fluctuate between Rs. 50 to Rs. 250. In Madras and Bombay, however, the maximum fees are Rs. 350 and Rs. 400 respectively. The fee for medical attendance in Madras and Bihar is Rs. 5, but the Medical Officers in Bihar have discretion to reduce or remit the whole amount. In the Punjab this fee varies from Re. 0-8-0 to Rs. 8 according to the status of the Medical Officer attending.

4. In the case of persons employed in factories, mines, quarries, tea estates and railways in Madras, Bombay and Sind, if admitted as in-patients at the instance of their employers, a charge of as. 8 is levied from the employers, but if they attend Government hospitals of their own accord they are treated as members of the general public for purposes of hospital charges.

5. Ex-Madras areas and ex-Bihar and Orissa areas, which now constitute the Orissa Province, are governed by the rules regarding hospital fees in force in Madras and Bihar respectively.

6. In the Central Provinces and Berar the system of charging a fee of two pice from each new patient, except paupers, attending a hospital or dispensary had been in force since 1933. The amounts received on that account in most cases were insignificant and with a few exceptions there had been an undoubted fall in the out-patients' attendance. It was thought that if the system were conscientiously worked out it was bound to lead to a "set-back" to the popularity of scientific medicine and the Local Government therefore allowed its discontinuance in the year 1936.

7. In the North-West Frontier Province an innovation of interest has been the starting of a "paisa" dispensary, where everybody is required to pay one pice for the day's medicine supplied and the income thus derived goes towards the running expenses of the dispensary. The success of this dispensary has led to the opening of similar dispensaries elsewhere.

8. A complaint frequently made against the administration of Indian hospitals is that large number of patients who can really afford to pay are treated free of charge. The problem is not simple because modern scientific medicine is costly and although a person may not be indigent as regards the ordinary necessities of life, he often is in respect to even minimum requirements when sick. In the absence of an almoner system hospital abuse is not easy to detect, but is probably less common than is frequently suggested. The increasing employment of honorary medical officers in hospital out-patients' Departments will probably be a useful corrective, since the final decision as to a patient's eligibility for free treatment rests largely with the doctor. On the whole the revenue obtained from the payments of ordinary patients is not large but fees paid by patients occupying private or paying wards should cover the cost to Government (or the Hospital Management) and in general do so.

## 6. BUILDINGS.

**Madras.**—Sir Frank Connor in a note on the Madras Medical Department writes that the demand for new buildings and extensions to existing buildings in the Medical Department seems to have been rather neglected in recent years. Besides progress has been hampered by what Sir Frank regards as a bad building policy, for the Medical Department is required to submit to Government detailed plans and estimates before sanction to the project is accorded. After such plans and estimates have been submitted the scheme is often not accepted for want of funds or other reasons. A very appreciable loss in time and money results as some years may elapse before it is eventually accepted and by that time considerable revision of the plans becomes necessary. Besides, for the construction of large hospitals the system of providing money in small yearly grants is most disadvantageous.

The most important work under construction in Madras was the remodelling of the Government General Hospital at Madras. H. R. H. the Prince of Wales Hospital for Children, as an adjunct to the Government Victoria Caste and Gosha Hospital, Madras, was completed and opened during the year. The construction of the new hospitals at Madura and Cocanada was nearing completion by the end of 1936. A new out-patient department has been added to the Government Victoria Caste and Gosha Hospital, Madras and a Venereal out-patient block to the Government Rayapuram Hospital, Madras.

**Bombay.**—During the year 1936 no major works pertaining to Government hospitals or dispensaries were undertaken in the Bombay Presidency. Minor works representing additions and alterations to hospital buildings costing about Rs. 53,000 were carried out at the several hospitals.

**Bengal.**—In Bengal an up-to-date and well equipped block, named Sir John Anderson Casualty Block, has been added to the Medical College Hospitals, Calcutta, at a cost of Rs. 2,84,030. It has accommodation for 40 beds and 4 cabins and is likely to remove the congestion in the Medical College Hospitals. Among the other important new works carried out mention may be made of the new out-patients department and menial quarters added to the Mayo Hospital, the new maternity hospital building in the Belgachia Medical College Hospitals and the extension of the out-patients department in the Shambhunath Pandit Hospital, Bhovanipore.

The proposal to rebuild the Lady Dufferin Victoria Hospital, Calcutta, made rapid progress during the year 1936. The King George V Silver Jubilee Committee gave a gift of Rs. 4,71,000 while further amounts were promised by the District Boards of Bengal. With the donations already received, the construction of the main hospital building is in progress.

In the mofussil in Bengal additions of new wards were made to some of the existing hospitals and many new dispensaries were opened.

**United Provinces.**—Due to financial stringency no major works could be undertaken in the United Provinces of Agra and Oudh. Certain works of a petty nature were carried out during 1936 from the lump allotment of Rs. 12,000. The Ursula Memorial Hospital, Cawnpore, was built at a cost of Rs. 3 lakhs, donated for the purpose by Messrs. Horsman Brothers of Cawnpore. A building for an X-Ray installation has been constructed in the compound of the Colvin Hospital, Allahabad.

**Punjab.**—The financial depression continued to stand in the way of new developments in the Punjab. Several schemes remained in abeyance for want of funds. The important events of the year 1936 were as follows:—

- (i) Opening of the R. B. Amar Nath Tuberculosis Institute in the Mayo Hospital, Lahore.
- (ii) Establishment of the Lady Emerson Chatarbhuji Maternity Home at Amritsar.
- (iii) Construction of the Gujar Mal Tuberculosis Hospital at Amritsar.

- (iv) Provision of a new dispensary block at Mukerian in the Hoshiarpur district.
- (v) Construction of the Teka Devi Health and ante-clinic centre in association with the Lady Willingdon Hospital, Lahore.
- (vi) Construction of a new hospital at Phalia by the Red Cross Society, Punjab Branch.

**Bihar.**—As a result of the devastating earthquake of 1934, several hospitals in Bihar were almost completely destroyed. Among these were the Bettiah Raj Hospital, the Purnea District Hospital, the Motihari District Hospital, the Darbhanga District Hospital, the Sitamarhi Sub-divisional Hospital and the Madhubani Subdivisional Hospital. Complete reconstruction has been necessary in the case of the six above named hospitals. At Bettiah a new hospital building has been completed at a cost of Rs. 6 lakhs; every effort has been made to make it one of the best designed and best equipped hospitals in India and the Bettiah Hospital for Women has also been enlarged. The plans and estimates for the rebuilding of the Purnea and Motihari District Hospitals were ready in 1937, though building operations had by then been started in the case of the former only. The new Darbhanga Hospital was expected to be ready for occupation by March 1938, and it has cost Rs. 7½ lakhs to build it. The Madhubani Subdivisional Hospital has been rebuilt, while the Sitamarhi hospital was still under construction in 1937. A new District Hospital has been built at Hazaribagh to replace the older one. In addition to these, several small District Board dispensaries that had been destroyed by the earthquake of 1934 have been or are being reconstructed. Besides, there has been general progress throughout the province and hospital buildings are being improved every year.

**Central Provinces and Berar.**—In the Central Provinces and Berar a modern up-to-date hospital for women was built at Khamgaon at a cost of Rs. 1½ lakhs in 1936. In 1937 schemes were ready for the building of a modern hospital in connection with the Countess of Dufferin's Hospital Fund Scheme at Amraoti at a cost of about Rs. 2 lakhs and the Lady Elgin Hospital for Women and Children at Jabulpore at a cost of about over Rs. 2 lakhs.

**Assam.**—The largest major work carried out in 1936 in Assam was the construction of a new hospital and a dispensary building at Sadiya at an estimated cost of Rs. 77,548 with staff quarters. A maternity and gynaecological ward attached to the Dibrugarh Civil Hospital has been constructed at an approximate cost of Rs. 26,800. One of the important construction works executed in 1936 was the enlargement of the anatomy department in the Berry-White Medical School, Dibrugarh.

**Orissa.**—In Orissa a children's ward with four beds and a Nursing Home with accommodation for three patients were added to the Cuttack General Hospital. Septic, tuberculosis and female wards were added to the Sadr Hospital, Balasore. In the same district new dispensary buildings were put up at Soro, Jellasore and Ballipal.

**Sind.**—No major works were undertaken in Sind during the year 1936. Due to the generosity of private individuals the accommodation at the Mirpurkhas Civil Hospital was increased in 1937 by the construction of a separate building for out-patients and offices and a ward for tubercular patients.

**North-West Frontier Province.**—In the North-West Frontier Province, a ward named as the "Brierley Memorial Tuberculosis Ward" with accommodation for 30 beds for tubercular patients has been added to the Lady Reading Hospital, Peshawar, at a cost of Rs. 23,286. To the Manshra Civil Hospital was added a 16 bedded ward, the cost of which was borne by the local District Board.

**Delhi.**—In the Delhi Province a start was made with building the Irwin Hospital in 1934, the foundation stone of which was laid by Lord Irwin in 1930. The responsibility for this hospital was undertaken by the Government of India, which had recognised for some years that it was necessary to build a modern general hospital for Old and New Delhi. The construction work of this hospital was completed in April 1936 at a cost of Rs. 2,361,390 on buildings and Rs. 2½ lakhs on equipment for the hospital. This hospital has accommodation for 320 patients, including 20 family wards and 10 special wards. The administration block and the operation theatres in the Irwin Hospital are air-conditioned.

A new ward has been added recently to the Silver Jubilee Tuberculosis Hospital, Delhi. An additional private cottage ward has also been built in this hospital.

The Delhi Municipal Committee decided to construct two new ward blocks, an administrative block and staff quarters during the financial year 1937-38 in the Isolation Hospital, Kingsway.

Lala Sri Ram of Delhi has donated Rs. 1 lakh for the construction of a Maternity Hospital which is being built in the Minto Road Area of New Delhi. The buildings will provide good accommodation for 40 maternity beds, labour rooms, theatre, etc., and the necessary staff quarters. The equipment will be supplied by the Delhi Municipal Committee, who will be responsible for running the hospital.

**Baluchistan.**—The construction of a new dispensary with residential quarters for the staff at Killa-Saifulla in Baluchistan was sanctioned during the year 1936 at a cost of Rs. 23,700.

Owing to the damage caused by the earthquake of 1935 several important works need to be taken in hand at an early date, viz., the construction of the Civil Hospitals at Quetta and Chaman, a new hospital building for Usta, a Civil Dispensary at Sinjawi and office of the Civil Surgeon, Fort Sandeman and Loralai.

**Coorg.**—At the Civil Hospital, Virajpet, an extension to the out-patients department was carried out and a small labour room constructed out of charity funds. Additional accommodation was secured at the Headquarters Hospital at Marcara by building a glass facade to one of the general ward verandahs.



**Ajmer-Merwara.**—A new out-patients department capable of dealing with 500 out-patients, with accommodation for venereal diseases, tuberculosis, ophthalmology and anti-rabic departments, has recently been added to the Victoria Hospital, Ajmer.

## 7. NURSING HOMES.

Few private Nursing Homes exist in India except in Calcutta, Madras and Bombay. In the last named, where there is a large and increasing demand for hospital maternity accommodation for all classes of people, the number of small, often badly equipped and indifferently managed homes calls for some form of supervision. The Provincial Medical Department has recommended legislation on the lines of the Nursing Homes Registration Act of Great Britain, which provides for registration and inspection.

## 8. X-RAY AND RADIUM FACILITIES.

Adequate facilities for Radium treatment do not exist in India, for while no such facilities exist in the United Provinces, Central Provinces, North-West Frontier Province, Baluchistan and Coorg, the following table indicates the limited extent to which they exist in the other provinces.

Madras	Barnard Institute, Madras	1½ grammes.
	Vizagapatam	100 milligrammes.
Bombay	J. J. Hospital, Bombay	} The radium used is not the property of Government but of the Honorary Surgeons who give the treatment.
	St. Georges Hospital, Bombay	
Bengal	Medical College Hospital, Calcutta	290·21 mgms.
	Presidency General Hospital, Calcutta	Radium elements, tubes and needles.
	Carmichael Medical College Hospital, Bel-gachia.	170 mgms.
	Chittaranjan Seva Sadan	100 mgms.
Punjab	Lady Willingdon Hospital, Lahore	447·64 mgms.
	Mayo Hospital, Lahore	71 mgms.
	Memorial Hospital, Ludhiana	210 mgms.
Bihar	Radium Institute, Patna	1,560 mgms.
Assam	Welsh Mission Hospital, Shillong	400 mgms.
Orissa	General Hospital, Cuttack	20 mgms.
Delhi	The Lady Hardinge Medical College, New Delhi	255·33 mgms.

2. In addition there are small quantities of Radium in the hands of private doctors. The Barnard Institute of Radiology, located at the General Hospital, Madras, is by far the finest institute of its kind in India, probably in the East. It has recently installed apparatus for the manufacture of Radon with which it will be possible to utilize the curative power of Radium to an increasing extent both in Madras and in outlying districts. The Institute, which, to quote Sir Frank Connor's note on the Madras Medical Department, "is a fitting memorial to the impatient industry of Captain Barnard, the Director" undertakes training classes for medical men, and proposals are under consideration for the establishment of a Diploma and University Degree in Radiology.

3. The Tata Memorial Hospital, Bombay, which has been founded by the Trustees of Sir Dorabji Tata Trust, and which will open early in 1933 will also have a large quantity of radium. It seems probable that there will be a bomb for beam therapy and also a supervoltage machine capable of producing neutrons as well as X-rays. In addition, several other therapy and diagnostic roentgen machines of various types and capacities will be maintained.

4. X-Ray facilities available in the various provinces can hardly be regarded adequate, as will be seen from the figures set forth in the following table.

Province.	Major sets.	Minor sets.	Remarks.
Madras . . . . .	12	..	Figures for major and minor sets not given separately.
Bombay . . . . .	10	1	
Bengal . . . . .	22	9	
United Provinces . . . . .	9	*11	*Plus 2 private owned sets and 3 minor sets.
Punjab . . . . .	10	3	
Central Provinces . . . . .	7	6	
Bihar . . . . .	1	8	
Assam . . . . .	3	..	
Sind . . . . .	2	1	
Orissa . . . . .	2	..	
Delhi . . . . .	3	3	
North-West Frontier Province . . . . .	1	4	
Baluchistan . . . . .	..	1	
Ajmer-Merwara . . . . .	1	..	

## 9. BEDS FOR MATERNITY CASES AND NUMBER OF LABOUR

The following table gives an idea of the number of beds available for maternity cases and the number of labour cases attended to in each province during the year 1937.

Province.	General Hospitals.				Women's Hospitals.				Maternity Homes.		
	No. of beds available for maternity cases.	No. of delivery cases attended to.		No. of beds available for maternity cases.	No. of delivery cases attended to.		No. of beds available for maternity cases.	No. of delivery cases attended to.	Normal.	Abnormal.	No. of delivery cases attended to.
		Normal.	Abnormal.		Normal.	Abnormal.					
Madras . . . . .	609	10,626	3,012	838	15,117	7,178	93	1,389	1,389	205	
Bombay . . . . .	413	11,471	1,579	836	4,416	1,434	1,386	17,482	17,482	1,982	
Bengal . . . . .	333	7,525	1,194	369	8,179	2,875	119	6,132	6,132	1,810	
United Provinces. . . . .	40	881	251	388	3,806	2,937	45	194	194	19	
Punjab . . . . .	113	3,403	972	343	3,403	1,659	46	1,653	1,653	119	
Central Provinces and Berar. . . . .	144	2,297	584	264	2,218	668	182	2,086	2,086	54	
Bihar . . . . .	92	*6,798	*2,763	143	..	..	..	..	..	..	
Assam . . . . .	47	510	165	64	..	50	9	..	..	..	
Sind . . . . .	Not fixed.	129	35	174	2,075	424	292	773	773	102	
Orissa . . . . .	33	†1,384	†190	19	..	..	..	..	..	..	
Delhi . . . . .	4	..	..	159	*2,111	*1,052	2	..	..	..	
North-West Frontier Province. . . . .	99	†1,070	†400	165	..	..	..	..	..	..	
Baluchistan . . . . .	..	..	..	8	208	183	..	..	..	..	
Ajmer-Merwara . . . . .	..	9	20	11	261	184	..	..	..	..	
Coorg . . . . .	21	395	24	..	..	..	26	393	393	106	

\* Number of labour cases attended to in all classes of hospitals and dispensaries.

† The Sylhet Maternity Home has been opened very recently.

‡ Separate figures not given.

## 10. HONORARY MEDICAL OFFICERS.

The system of appointing honorary medical officers to Government institutions is in force in the provinces of Madras, Bombay, Bengal, the United Provinces, the Central Provinces and Berar, Bihar, Orissa and Sind. A résumé of the rules regulating such appointments in these provinces is given below. The Bombay rules apply to Sind. In Orissa the rules regulating such appointments are under preparation. For the present the Madras rules are applicable to South Orissa.

## MADRAS.

• **Scope of appointment.**—All posts other than those mentioned below, including teaching appointments in Medical Colleges and Schools, are open to honorary medical officers as and when vacancies arise in the Provincial and Subordinate cadres of medical officers and so far as suitable persons are available for such appointments:—

- (i) Superintendents of Government Hospitals in the Madras City.
- (ii) District Medical Officers and Superintendents of Government District Headquarters Hospitals.
- (iii) Chief Medical Officers in charge of Government Hospitals with 30 beds and over.
- (iv) Resident Medical Officers who are also Assistants to Superintendents of Hospitals.
- (v) Appointments in the King Institute, Guindy, and Pasteur Institute, Coonoor.

**Designations.**—The honorary medical officers are designated as:—

- (i) Honorary House Surgeons and Physicians.
- (ii) Honorary Assistant Medical Officers.
- (iii) Honorary Surgeons and Physicians.

**Qualifications.**—(i) Licentiates are appointed as Honorary House Surgeons and Physicians.

(ii) Graduates are appointed as Honorary Assistant Medical Officers.

(iii) Persons possessing qualifications like M.D., M.S., M.R.C.P., F.R.C.S., F.C.O.G., etc., are appointed as Honorary Surgeons and Physicians.

**Honorarium.**—Honorarium is as shown below subject to such conditions as the Local Government may prescribe from time to time:—

	Rs.
(1) Honorary Surgeons and Physicians who have work in hospitals and also teaching work . . . . .	100 p in.
(2) Honorary Professors who have only teaching work . . . . .	60 „
(3) Honorary Assistant Medical Officers who have work in hospitals and dispensaries and also teaching work . . . . .	40 „
(4) Honorary Assistant Medical Officers who have no teaching work . . . . .	30 „
(5) Honorary Assistant Medical Officers who have only teaching work . . . . .	20 „

**Duties.**—(i) Honorary medical officers are required to perform such duties as may be assigned to them by the head of the institution, in the in-patients department, out-patients department or both, or teaching work.

(ii) They are required to give at least three full hours of the best part of the day for service in the hospitals to which they are appointed.

(iii) Honorary medical officers who have only out-patients in their charge have to attend daily during the out-patients hours.

(iv) The hours of attendance are fixed by the heads of teaching institutions, Superintendents of Hospitals or the District Medical Officers concerned.

(v) Honorary medical officers possessing special qualifications are, as far as possible, placed in charge of special departments but they may, with the approval of the Superintendent of the institution, undertake general work in the institution to which they are attached.

(vi) Honorary Surgeons and Physicians are placed in charge of a specified number of beds for surgical and medical cases respectively and they are entirely responsible for the treatment and care of the patients in their charge. They are to visit the patients in their charge daily or more than once daily should that be necessary, except on Sundays, and answer all emergent calls relating to them on Sundays. The honorary officers attached to hospitals run in connection with teaching institutions are responsible for imparting such clinical instruction to students as may be laid down by the Professor or the Superintendent of the institution.

(vii) Honorary medical officers placed in sole charge of Government medical institutions are required to co-operate with public health staff in epidemic work in their localities in the event of a sudden outbreak of an epidemic.

**Private Practice.**—Honorary medical officers are free to undertake private practice outside Government institutions but cannot (i) receive any fee from patients seeking admission in Government hospitals, (ii) either directly or indirectly admit or seek to admit in Government hospitals patients from whom they have received fees, or (iii) discharge any patient

from the hospital for the purpose of treating him as a private patient. It is, however, open to any honorary medical officer to take under his care a patient who has been discharged from the hospital in accordance with the rules governing the discharge of patients from Government hospitals.

**Leave.**—Casual leave is allowed up to 15 days in a year. Other leave is granted only if arrangements can be made for carrying on the duties of the honorary medical officer concerned without extra expenditure to Government.

**Age-limit.**—Service after attaining the age of 55 years is subject to the production of a certificate of physical fitness.

In his note on the Madras Medical Department Major-General Sir Frank Connor writes as follows:—

“The scheme of appointment of honorary medical officers was extended during my term of office, particularly for the working of special clinics. The scheme has worked fairly well and there is room for many more honorary medical officers, particularly if a small but sufficient stipend is sanctioned by Government; this would add to the sense of responsibility of the officers concerned and make the appointments more attractive. In my opinion any extension should be gradual and it should always be provided that the nucleus of Government medical officers should be sufficiently large and very carefully selected; it falls to the lot of these medical officers to do all the administrative work and most of the resident work, and therefore most of the responsibility rests on their shoulders. It must be borne in mind that in a country like England, where most of the hospitals are worked on an honorary basis with voluntary funds, there is a steady tendency to replace honorary medical officers by a State medical service. The enormous medical organization of the London County Council is now officered by permanent paid medical officers, helped by a very few distinguished consultants. This whole-time paid service is expensive, but has proved very efficient. In the case of clinical teaching appointments, however, it is essential that the professors and teachers should have had the additional experience which can only be gained by private practice; a professor of medicine or surgery is not paid to teach students merely medicine or surgery, but how to practise these sciences, and much of the knowledge required for this purpose can only be obtained outside the wards of a hospital.”

#### BOMBAY.

**Scope of appointment.**—Honorary medical staff is appointed to all hospitals where facilities exist for their employment. All appointments are made by Government. Vacancies are notified in the press and applications received are submitted to Government with the recommendations of the head of the institution concerned and of the Surgeon General with the Government of Bombay.

**Qualifications.**—In the case of Hospital appointments in Bombay, except those with which teaching duties are combined, the minimum qualification required is the M.S. or M.D. degree of Bombay, but preference is given to those candidates who have obtained the F.R.C.S. or M.R.C.P. For special appointment in Ophthalmology, Ear, Nose and Throat Surgery, Radiology, etc., candidates are required to produce evidence to show that they possess special proficiency or qualifications suitable for the appointment. For ordinary appointments the candidates must be graduates of Bombay or of any other recognised University. When suitable graduates are not available, Government may, on the recommendation of the Surgeon General, appoint licentiates to such appointments.

**Duties and tenure of appointment.**—Honorary appointments which carry teaching duties are tenable for 5 years, subject to termination by three months' notice on either side, the first two years being probationary period. The tenure of appointments which involve the duties of imparting clinical instruction only, is three years, terminable by three months' notice on either side, the first year being the period of probation. Non-teaching appointments are tenable for two years terminable by one month's notice on either side, the period of probation being one year.

**Leave.**—The Surgeon General with the Government of Bombay is empowered to grant leave to honorary medical officers without any honorarium up to 6 months and to appoint suitable substitutes during leave period in such cases.

**Age limit.**—Honorary medical officers must ordinarily retire on attaining the age of 55 years. Retired honorary medical officers may be appointed Consulting Physicians and Surgeons by Government. Such officers are not ordinarily required to do any duty at the hospital but are accorded all such general privileges as are granted to members of the medical staff. Government medical officers may, after retirement, be appointed by Government, in special cases and strictly on grounds of merit, as Consulting Physicians and Surgeons.

## BENGAL.

**Scope of appointment.**—Honorary medical staff is employed in the following institutions:—

- (1) Medical College Hospitals, Calcutta.
- (2) Hospitals attached to the Medical Schools.
- (3) Shambhu Nath Pandit Hospital, Bhowanipore.

**Designations.**—In No. 1 the honorary medical officers are designated as:—

- (a) Honorary Clinical Assistants.
- (b) Honorary House Surgeons and Physicians.
- (c) Honorary Surgeons and Physicians.
- (d) Honorary Junior Surgeons and Physicians.

In No. 2, honorary appointments are styled as Honorary House Surgeons and Physicians and Registrars.

In No. 3 the members of the honorary staff are designated as (i) House Surgeons, (ii) House Physicians, (iii) Honorary Surgeons and (iv) Honorary Physicians.

**Qualifications.**—Appointments as Honorary Clinical Assistants and Honorary House Surgeons and Physicians at the Medical College Hospitals are made from amongst the newly passed students of the Medical College, Calcutta, the tenure of appointment being 6 months, which is generally not extended. Suitable candidates are appointed on a tenure basis as Honorary Surgeons and Physicians and Honorary Junior Surgeons and Physicians; preference being given to those who have undergone post-graduate training and possess foreign qualifications.

The junior appointments (Clinical Assistants, House Physicians or Surgeons), in Hospitals attached to the Medical Schools are reserved for the newly passed students of Medical Schools (*i.e.*, candidates with L.M.P. qualifications), the tenure of appointment ranging from 6 months to 1 year.

The honorary staff for the Bhowanipore Hospital is appointed on the recommendation of the Superintendent by the Board of Governors subject to the approval of the Surgeon General with the Government of Bengal. The tenure of appointment is terminable at any time without notice by the Board of Governors.

**Duties.**—In the institutions mentioned at Nos. (1) and (2) above, the members of the senior honorary staff frequently visit the out-patients department on appointed days. The members of the junior honorary staff work in the out-patients department on their senior's days and their duties there consist of (i) imparting practical instruction and giving clinics to students (ii) advising on the diagnosis and treatment of out-patients referred to them by Resident Medical Officer (iii) continuing in attendance until the work in the out-patients department is completed and (iv) reporting immediately to the Principal, the Superintendent and the Senior Staff any unusual occurrence that may take place in the out-patients department. The junior honorary staff also attends on emergent cases in the hospital when required and carry out the senior's work when the latter is on short leave.

In the Shambhu Nath Pandit Hospital, Bhowanipore, honorary medical officers attend the hospital on appointed days. Those who have beds allotted to them have professional charge of all cases admitted under their care and in addition to their regular visiting hours answer all emergent calls to these cases at any time.

The House Surgeon and House Physician are responsible to the Honorary Surgeon and Physician respectively for the care of their cases in their absence and have to attend them on their visits to the hospital. When not so employed they perform any duty they may be called upon to do in the hospital, such as giving anaesthetics or preparing returns, etc., and take their turn of emergency duty.



## UNITED PROVINCES.

**Scope of appointment.**—Honorary medical officers are appointed to hospitals maintained or aided out of State or local funds in the United Provinces. A candidate for appointment as honorary physician or surgeon or honorary medical officer should have been in the active practice of his profession for at least three years and for at least one year in practice in the place of the honorary appointment, and must be registered under the United Provinces Medical Act. The Inspector General of Civil Hospitals, United Provinces, selects candidates for honorary appointments on the recommendation of the Commissioner and the Civil Surgeon and publishes their names in the Government Gazette.

**Designations.**—There are three classes of honorary appointments, viz.,

- (1) Honorary Physicians and Surgeons.
- (2) Honorary Medical Officers.
- (3) Honorary Clinical Assistants.

**Qualifications.**—(1) Honorary Physicians and Surgeons are of consultant status, may be appointed to any sphere of hospital activity and must possess higher medical and surgical qualifications, such as M.D., M.S., F.R.C.S., M.R.C.P., etc., for ordinary appointments and for special appointments either of these or some special qualifications in the subject, such as D.O., D.L.O., D.M.R.E., etc.

(2) Honorary Medical Officers may be appointed to attend to out-patients only and must have held a resident appointment in some hospital prior to their honorary appointment.

(3) Honorary Clinical Assistants are appointed from among the ordinary graduates of the Lucknow University who have not settled in practice, to the various departments of larger hospitals, tenure being six months.

After 5 years' continuous service as an honorary medical officer in the same hospital, an honorary officer becomes entitled to appointment as Honorary Physician or Surgeon without the necessity for holding higher academic qualifications.

**Duties and tenure.**—Honorary appointments are tenable in the first instance for two years, the first 6 months being probationary period. The Inspector General of Civil Hospitals, United Provinces, may confirm the appointment or not and renew it in due course for further periods of three years at a time at his discretion, but the Local Government reserve to themselves the right to cancel the appointment for any sufficient reason.

An honorary physician and surgeon is, on request, assigned beds to him in a ward of medical or surgical cases where he can treat patients eligible for admission to the hospital. He can admit only such patients as are entitled to gratuitous hospital treatment under the rules. He is entirely responsible for the treatment and care of patients in his wards, subject only to the general control of the Civil Surgeon and is expected to visit them

once daily and oftener, if necessary, and to answer all emergent calls relating to them. Except at the special request of the Civil Surgeon or in his absence of the Senior Assistant, the honorary officer may not deal with cases not assigned to him or with other miscellaneous work of the hospital.

**Duties.**—The duties and hours of attendance of the honorary staff are fixed by the Civil Surgeon in consultation with the honorary officer and the medical officer in charge of the hospital.

**Leave.**—Members of the honorary staff have to apply for leave to the head of the hospital and cannot absent themselves from duty or alter the time of attendance without his permission.

#### CENTRAL PROVINCES & BERAR.

**Scope of appointment.**—Honorary appointments are made from among local medical men who apply for the posts.

**Designations.**—The honorary appointments are styled as:—

- (i) Honorary Physicians and Surgeons.
- (ii) Honorary Specialists.
- (iii) Honorary Anaesthetists.
- (iv) Honorary Tuberculosis Officers.
- (v) Honorary Assistant Surgeons.

**Tenure and Duties.**—All honorary posts are tenable for one year, the incumbent being eligible for reappointment.

Honorary Specialists must not interfere with the internal economy of the hospital in any way, nor with the work of executive staff. The beds allotted to them are provisional and may be filled up, if vacant, by the executive staff at any time. The use of operation theatre, dark room, X-Ray room or laboratory, etc., is restricted to two days a week for each specialist. On these days he is "on duty" and liable to be called upon for emergencies during that period.

#### BIHAR.

**Scope of appointment.**—Honorary medical officers are appointed by Government on the recommendation of the Inspector General of Civil Hospitals, Bihar, and in consultation with the Superintendent of the institution concerned.

**Designations.**—The honorary staff is designated as:—

- (i) Honorary Physicians and Surgeons.
- (ii) Honorary Medical Officers.

**Qualifications.**—Ordinarily honorary medical officers are selected from among those who have held appointments affording special opportunities for acquiring special skill and experience of the kind required and have had special academic and post-graduate study or are generally recognised by other practitioners in the area as possessing special proficiency and experience.

**Tenure and duties.**—The tenure of honorary staff is in the first instance two years, renewable by Government after consultation with the Inspector General of Civil Hospitals and terminable by one month's notice on either side.

Honorary officers are required to conform to the rules in force in the hospital in which they are working. They are placed in charge of specified number of beds and held entirely responsible for the care and treatment of the patients in their charge. They visit patients daily once, or more than once should that be necessary, except on Sundays and answer emergent calls relating to them.

Honorary medical officers have no professorial duties in the College but they are responsible for imparting clinical instruction to students in connection with the beds in their charge in accordance with such plan as may be laid down by the Professor or Lecturer in charge of the Unit. Honorary medical officers who have only out-patients in their charge may attend daily but need not attend more than three days a week with the consent of the Superintendent of the hospital.

The entire management and control of the hospital and the discipline of the staff are vested in the respective medical officers in charge. Honorary officers are expected to observe all rules in force and to report all instances of neglect or inattention or breaches of discipline to the Government Medical Officer in charge to deal with them.

**Leave.**—Honorary medical officers may be granted casual leave up to 15 days by the Superintendent of the hospital and leave of absence other than casual leave by the Inspector General of Civil Hospitals, Bihar, provided he can make arrangements for carrying on their duties without any extra expenditure to Government.

## 11. POST-GRADUATE TRAINING FOR ASSISTANT AND SUB-ASSISTANT SURGEONS.

The system of imparting post-graduate training to Assistant and Sub-Assistant Surgeons obtains in all provinces except Madras, Delhi, Baluchistan and Coorg. Post-graduate training of 3 months' duration each time is given in Bengal to Assistant as well as Sub-Assistant Surgeons between the 4th and 7th year of service and again between the 11th and 14th year of

service. The instruction is separate from that given to under-graduates and is imparted to Assistant Surgeons at the Medical College, Calcutta, and to Sub-Assistant Surgeons at the Campbell Medical School, Calcutta, and at the Medical School, Dacca. In the Bombay Presidency no regular post-graduate course for either class exists though immediately on recruitment Sub-Assistant Surgeons are given practical training as House Surgeons or Physicians at the General Hospitals in Poona and Ahmedabad, and a short course in Hygiene. While Sub-Assistant Surgeons in the United Provinces are given no such training, Assistant Surgeons have to take up in two instalments a course each of three months' duration at the King George's Medical College, Lucknow, between the fourth to seventh and tenth to fourteenth years of their service. Failure to attend the first course within the first eight years of service and the second within fifteen years of service renders the Assistant Surgeons concerned liable to stoppage of further increments. In the Punjab also Sub-Assistant Surgeons are given no post-graduate training, though the system is in force for Assistant Surgeons, who have to undergo two courses each of 3 months' duration at the King Edward Medical College, Lahore, at the end of the fifth and tenth year of service respectively. An examination is held at the conclusion of each course. Instruction in hospital courses is imparted along with under-graduates, but in other subjects separate classes are held. In Bihar both classes of doctors have to undergo post-graduate training, which lasts for three months between the 5th and 7th and 12th and 14th year of service for Assistant Surgeons and between the 6th and 8th and 13th and 15th year of service for Sub-Assistant Surgeons. The instruction is given separately to graduates and under-graduates, for the former attend the Medical College Hospital, Patna, and the latter the Medical School Hospital, Darbhanga. An examination is held at the end of each course. With minor variation of details almost a similar system obtains in the Central Provinces where Sub-Assistant Surgeons are given training at the Robertson Medical School, Nagpur, and Assistant Surgeons at the Medical College, Calcutta. In Assam the system of giving post-graduate training to Assistant Surgeons is in abeyance due to financial stringency, but it is given to Sub-Assistant Surgeons, who have to undergo two courses each of 3 months' duration between the 4th and 7th year of service and between the 11th and 14th year of service. The instruction is given at the Campbell Medical School, Calcutta, separately from that imparted to under-graduates and an examination is held at the end of each course. In Sind the system of imparting post-graduate training to Sub-Assistant Surgeons obtains on much the same lines since 1930 as in Bombay, while the scheme for Assistant Surgeons has not been worked at all since they have not taken advantage of the system. Orissa follows the same procedure as in Bihar except that Sub-Assistant Surgeons are trained at the Cuttack General Hospital. In the North-West Frontier Province Assistant Surgeons have to attend a three months' course at the Lady Reading Hospital, Peshawar, before completion of 5 and 10 years of their service. An examination is held at the end of the course. No such system of instruction exists for Sub-Assistant Surgeons, though the latter possessing licentiates' qualification only have to appear at written and oral professional examinations after 5, 10 and 15 years' service.

## 12. MENTAL HOSPITALS AND PSYCHIATRIC CLINICS.

There are 17 Mental Hospitals in British India distributed as follows:—

Province.	Where situated.	Sanctioned accommodation available.
Madras Presidency	Madras	744
	Waltair	124
	Calicut	286
Bombay Presidency	Thana	318
	Ratnagiri	176
	Yervada	817
	Dharwar	171
	Ahmedabad	167
United Provinces	Agra	826
	Bareilly	402
	Benares	373
Punjab	Lahore	1008
Bihar--		
For Europeans	Ranchi	250
For Indians	Kanke	1286
Central Provinces	Nagpur	470
Assam	Tezpur	690
Sind	Hyderabad	317

The Province of Bengal has arrangements by which its mentally defective patients are admitted to the Mental Hospitals in Bihar.

2. In the Mysore State there is a Mental Hospital at Bangalore, which has accommodation for 183 males and 67 females. In the year 1936, 289 males and 162 females were treated as in-patients in this hospital.

3. There is no separate mental hospital in Hyderabad State. A small lunatic asylum exists, which is housed inside the Central Jail at Hyderabad and is in charge of a specialist with D.P.M. qualification. This asylum has accommodation for 175 males and 50 females, while the number of patients actually confined during 1936 were 432 males and 141 females. A scheme for the construction of an up-to-date mental hospital has been sanctioned and the construction work is to be started shortly.

4. **Accommodation and overcrowding.**—In the 17 mental hospitals in British India there is accommodation for 8,425 patients, but the number of patients actually confined in the hospitals in 1936 was 11,792 (8,930 males and 2,862 females). There was overcrowding in almost all the hospitals, but it was more acute in Madras, Bombay and the United Provinces.

**5. Increasing use of Mental Hospitals.**—From overcrowding and from the fact that a large number of requests for admission had to be refused for want of accommodation it is clear that these hospitals are growing in popularity and that public consciousness is being awakened in regard to the use of these institutions. The demand for admissions in some hospitals had sometimes been so great that even criminal insanes had to be lodged in jails where there were no satisfactory arrangements for treatment. Better methods of treatment, improved sanitary conditions and other facilities offered by the mental hospitals are being appreciated by the public.

**6. System of sending inmates of mental hospitals on parole.**—In Madras convalescent patients of the Madras Mental Hospital are sent home on parole for 30 days at a time. The system has been in vogue for some years under the approval of the Surgeon General but has not been recognised by an Act of the local legislature. It has proved very useful. Though the question is under consideration in Bombay the system does not yet prevail there, nor does it obtain in the Punjab, Assam, Sind, Orissa, Baluchistan and Coorg. There is no mental hospital in Bengal, but the mentally defective patients of the province go to the Mental Hospitals in Bihar, where the system of sending patients on parole is in force as it is at the Mental Hospital, Agra, but not at the two other mental hospitals at Bareilly and Benares in the United Provinces. Patients are also discharged on parole in the Central Provinces and Berar and the North-West Frontier Province.

**7. Probable causes and types of insanity.**—Among the predisposing causes of insanity, judged from the condition of admissions during the year 1936, were mental and moral stress, business and domestic worries, addiction to drugs and drinks, infections, previous attacks and hereditary predisposition. The largest number of cases were between the ages of 20 to 40. Out of a total of 11,792 cases of insanity in 1936, 839 were due to mental deficiency, 1,187 to maniacal depressive insanity, 1,949 to mania, 1,441 to melancholia and 2,195 to schizophrenia including dementia præcox. Other principal types of the diseases were cannabis indica, addiction, psychosis, epilepsy, paranoia and paranoid states and secondary dementia.

**8. Psychiatric Clinics.**—Psychiatric clinics attached to large hospitals, medical schools and colleges do not exist in Madras for the treatment of mentally defective patients. In Bombay there is a psychiatric clinic attached to the J. J. Hospital, Bombay, in the charge of an Honorary Medical Officer, who runs it for two days in a week. Bengal has a clinic attached to the Carmichael Medical College, Belgachia, managed by a committee appointed for the purpose. There is a small clinic attached to the King George Medical College Hospital, Lucknow, in the United Provinces, which is a sub-section of the medical out-patient department of the College Hospital and is in charge of the physician of that department. No such clinics exist in the Punjab, Bihar, Central Provinces and Berar, Assam, North-West Frontier Province, Orissa, Baluchistan and Coorg.

**9. Training of mentally defective children.**—No separate institution for the training of mentally defective children exists in Madras, but a training class of about 15 children, who were inmates of the Madras Mental Hospital,

was formed in 1937 and instruction in sense training, simple story telling, picture drawing etc. was given and facilities for excursions, outdoor games, amusements and certain simple cottage industries provided.

10. In Bombay the training of mentally defective children is undertaken at the Byramjee Jeejeebhoy Home for Children, Matunga, which is maintained by the Society for the Protection of Children in Western India. A specially trained lady teacher has been engaged for the purpose and she works under the direction of the Honorary Psychiatrist of the Home. The children are taught on Montessori lines and the training includes classes on sewing, embroidery, raffia work and bead work, etc.

11. Mentally defective children in Bengal are trained at the Kurseong Home in Darjeeling District and the Bodhana Niketan in the suburbs of Calcutta. Both are private institutions.

12. No facilities for the training of mentally defective children exist in the United Provinces, Punjab, Bihar, Central Provinces and Berar, Assam, Sind, North-West Frontier Province, Orissa, Baluchistan and Coorg.

13. Arrangements for the care of the mentally defective are undoubtedly inadequate, a condition which obtains in most agricultural countries and which is not peculiar to India. With increasing urbanisation and education there is a greater demand that these patients should be cared for and that institutional treatment for the indigent mental patients is a charge on the State. A greater part of the accommodation in existing mental hospitals is occupied by incurable patients, and the only important advance made in recent years has been the organisation of Psychiatric Clinics at medical teaching institutions in Bombay, Bengal and United Provinces. Funds are not available anywhere to provide adequate accommodation for mental patients in India, but wherever possible psychiatric clinics should be opened at the larger hospitals. Such clinics deal especially with the early curable cases and when combined with a Neurology clinic often produce the confidence which attracts patients. Indian medical practitioners are becoming increasingly interested in this branch of medicine and specialists who have taken European training are practising in larger centres.

### 13. MEDICAL INSPECTION OF SCHOOL CHILDREN.

A regular system of medical inspection of school children is in force in all provinces, except Madras, Bombay and Sind. The system of medical examination of college students prevails only in Bengal and Bihar, while at the Bombay University it is confined to students of Intermediate classes. In Baluchistan the system has not been regularised, but doctors visit schools occasionally, while in the United Provinces, Punjab, Bihar, Orissa and North-West Frontier Province it has developed to a considerable extent.

2. There are 13 whole-time and 55 part-time inspectors in the United Provinces, 15 whole-time and 92 part-time medical officers in the Punjab, 4 whole-time school medical officers assisted by 4 sub-assistant surgeons and one lady Doctor for girls schools in Bihar, 2 medical officers in Orissa and 4 whole-time and 9 part-time inspectors in the North-West Frontier Province. In Calcutta there are 3 part-time medical officers. In

Delhi there are 6 whole-time and 5 part-time inspectors and one lady doctor. In Assam Sub-divisional medical officers work as part time school medical inspectors.

3. In the Punjab a number of schools in urban areas group together and open a dispensary, while others are required to stock a few ordinary medicines for ailments that can be dealt with on the spot. In the United Provinces there are five central school clinics at Lucknow, Agra, Allahabad, Cawnpore and Benares and many schools in rural areas keep village aid boxes. All Anglo-Vernacular schools in the United Provinces are required to stock a few ordinary medicines for treatment of ailments on the spot. There are two school clinics in Delhi. In the rural areas of Delhi first aid medical boxes are provided in some schools for the treatment of school children. In the North-West Frontier Province a medicine chest is maintained at every school. In Bengal no arrangements for the treatment of ailments at the spot exist, though students with delicate health are supplied with Cod Liver Oil and Calcium Salts free of charge and about 100 poor students with defective eye-sight given free spectacles every year. In other provinces the children who need treatment are required to go to the nearest hospital or dispensary.

4. Features peculiar to certain plans in vogue in the various provinces may briefly be stated as follows. In the Bengal Presidency Medical Inspection of school children is confined to Government and Government aided schools in the city of Calcutta. The students of the primary classes in Calcutta and of both primary and secondary classes in Mofussil are yet outside the scope of the existing schemes for medical inspection of school children. The system as obtaining in Calcutta is inadequate and unsatisfactory as three part-time medical officers can hardly cope with the work of examining 8,000 students of 33 schools scattered over an area of about 10 miles. An extension and improvement of the scheme is recommended by the local authorities. In the Punjab there is a separate scheme each for urban and rural areas. In the urban areas a group of schools in larger areas combine, engage a whole-time doctor, open a dispensary and conduct medical inspection and treatment of school children and teachers. In smaller areas in urban centres every school is expected to arrange with some local practitioner or hospital doctor to get every student examined once a year and to get treatment and medicines for students suffering from any ailments. A scheme for the medical inspection of school children in rural areas was introduced as an experimental measure in the districts of Gurgaon, Jullundur, Sialkot, Shahpur and Multan in 1926. Rural Dispensary doctors are required to examine at least once a year and treat free of charge students belonging to schools of villages where the dispensaries are located. In Bihar the system of medical inspection of school children is in force since 1920 and covers high and middle schools situated in places where high schools exist. College students are medically examined under arrangements made by the Governing Bodies of the Colleges concerned. Since 1935 students of Middle Schools in rural areas are examined by the neighbouring Dispensary Doctors under the direction of the District Board Health Staff. In Assam students of Government schools at District and Sub-divisional Headquarters are inspected once a month.



5. The schemes of medical inspection of school children as obtaining in the various provinces are under the control of Public Health Department, except in Assam, Baluchistan and Coorg, where they are under the Medical Department, while in Bengal the responsibility rests with the Director of Public Instruction who functions through the Physical Director in this behalf.:

6. The medical inspection of school children is one of those branches of medical activity where the Medical and Public Health Departments can and often do usefully co-ordinate.

7. Apart from the United Provinces, Punjab, Bihar, Orissa and North-West Frontier Province, medical inspection of schools is not an established success, partly due to lack of co-operation on the part of the teachers and the parents, for while defects in children are detected by the school medical inspectors, they are not properly followed up. But the desirability of the extension of the existing system is universally acknowledged. Primary classes, as also schools in rural areas, should be brought under the scheme where they are still outside its scope. A system for the examination of girls schools should also be established and Lady Medical Officers employed for the purpose, for so far Bihar and Delhi are the only provinces where there is a Lady School Medical Officer. There is a suggestion from the Punjab that there should be a separate Medical Inspector of Schools for every district and that children should be examined at least twice a year. Bihar suggests provision of funds for free distribution of spectacles and certain medicines to the poor students. There is a suggestion from the same province that arrangements should be made for the occasional visits of Dentists and Eye Specialists, and also, where possible, for a cheap but nutritious midday meal for school children as this will considerably reduce the cases of malnutrition. Teachers should take more interest in the health and physique of children in their care. Assam recommends that a quarterly School Medical Record card should be maintained for each student.

8. It is important that the results of these experiments should be reviewed in each province periodically and the schemes extended by employment of additional whole or part-time medical inspectors, where necessary, who should receive special training in the work. The establishment of school clinics should be encouraged as far as possible as this is an important factor on which the success of the plan depends to a great extent.

#### 14. EFFECTS OF EARTHQUAKES IN BIHAR AND BALUCHISTAN AND PROGRESS THEREAFTER.

A devastating earthquake occurred in Bihar in 1934 and was responsible for the complete demolition of numerous buildings, and for the tremendous loss of life. Among the hospital buildings most affected by the earthquake were the Bettiah Raj Hospital, the Purnea District Hospital, the Motihari District Hospital, the Darbhanga District Hospital, the Sitamarhi and Maithubani Sub-divisional Hospitals. These institutions required complete reconstruction. At Bettiah a new hospital building has been put up at a cost of Rs. 6 lakhs. Every effort has been made to make it one of the best designed hospitals of India. The plans and estimates for the re-building of the Purnea and Motihari District Hospitals were ready in 1937, though

building operations could be started in the case of the former only. The new Darbhanga Hospital was expected to be ready by March 1938, at a cost of Rs. 7½ lakhs. The Madhubani Sub-divisional Hospital has been rebuilt, while the Sitamarhi Hospital was still under construction in 1937. Several small District Board dispensaries that had been destroyed by the earthquake have been or are being reconstructed.

The earthquake of June 1935 had an equally disastrous effect on the buildings in Baluchistan. The Civil Hospitals at Chaman and Quetta and the Lady Sandeman Dufferin Hospital, and the Mission Hospital, Quetta, were completely demolished by the earthquake. It is proposed to reconstruct the two civil hospitals at Chaman and Quetta. As a result of the earthquake the Church of England Zenana Mission Hospital and the C. M. S. Hospital at Quetta ceased to work, but they restarted working in May 1936. The Lady Sandeman Dufferin Hospital, Quetta, restarted work in February 1936 in the compound of the Civil Hospital at Quetta, which itself continued to work in the temporary huts put up at its old site in 1935. The Quetta Municipal Dispensary which ceased to function after the earthquake has not yet been revived.

#### \*15. LEGISLATION REGARDING CONTROL OF PRACTITIONERS OF THE INDIAN SYSTEMS OF MEDICINE.

For sometime past there had been a demand from the public of the Bombay Presidency for the recognition by Government of the Ayurvedic and Unani systems of medicine. There is accordingly now under consideration in the Bombay Legislative Assembly, a Bill to regulate the qualifications and to provide for the registration of practitioners of Indian systems of medicine. The Bill provides for the establishment of a Board of Indian Systems of Medicine, with one President and twelve members. Registered practitioners of the Indian systems of medicine shall, under the provisions of this Bill, be regarded as "legally qualified" or "duly qualified" medical practitioners and certificates granted by them shall be recognised by law. The Board of Indian Systems of Medicine shall prescribe the course of training and qualifying examinations including training and examinations in pre-clinical subjects and no person shall be eligible for registration unless he has passed a qualifying examination. The qualifying examination and every prior examination leading up to it shall be inspected by the Inspectors to be appointed by the said Board at least once in four years or oftener, if the Board so decides. If the Provincial Government is, on the report of the Board or otherwise, satisfied that the course of study and examinations prescribed by any of the institutions are not such as to secure to persons obtaining such qualifications requisite knowledge and skill for the efficient practice of their profession, it shall be lawful for the Provincial Government to direct the removal of the name of such institution from the list of institutions authorised to hold a qualifying examination. A list of practitioners for the time being registered and their qualifications shall be published every year and in any proceedings it shall be presumed that a practitioner entered in such list is a registered practitioner. No person other

\* The information contained in this note has been extracted from the daily press.

than a practitioner registered under the aforesaid Bill or under the Bombay Medical Act, 1912, shall be eligible to practise any system of medicine, surgery or midwifery, but the Provincial Government is authorised to direct that this provision shall not apply to any person or class of persons or in any specified area.

2. The Madras Government have recently accorded a certain amount of recognition to the practitioners of the Indian systems of medicine inasmuch as candidates who have acquired the diploma in medicine of the Government Indian Medical School, Madras, are, besides medical graduates and licentiates, eligible for appointment to subsidised rural dispensaries.

3. In response to a number of requests the Punjab Government have recently decided to appoint a Committee with the Inspector General of Civil Hospitals, Punjab, as President, to consider steps that can be taken to give protection to practitioners of indigenous systems of medicine on the lines of the rules introduced by the Government of the United Provinces in 1931 for the registration of vaidas and hakims and whether any legislation on the subject is necessary, and if so, on what lines.

4. With a view to recognising the Ayurvedic and Unani systems of medicine the Government of the United Provinces propose to introduce legislation on the subject at the next session of the Assembly. The Hon'ble Mrs. Vijaya Lakshmi Pandit, Minister for Local Self Government and Public Health, United Provinces, recently received a deputation of Vaidas and Hakims. It is contemplated to adopt a system of registration or otherwise of recognition. The Ministry have recently addressed Local Boards inviting their co-operation in inaugurating a system of subsidising Vaidas and Hakims in the villages which would include the provision of a cheap system of medical treatment in rural areas. A sum of Rs. 40 lakhs available in the current year's budget for this purpose is being utilised for the proposed subsidy.

## 16. RURAL MEDICAL RELIEF.

During recent years the problem of Rural Medical Relief has received considerable attention from Provincial Public Health and Medical Departments, and in 1934-35 the Government of India allotted a sum of Rs. 1 crore for rural reconstruction, to be distributed on a basis of rural population. The various schemes evolved deal with the more pressing needs of village life and include measures to deal with sanitation, malaria, water supplies, drainage and roads.

2. The Rockefeller Foundation has played a very valuable part in recent years in developing health activities in rural areas. Their policy has been the establishment of Health Units in co-operation with provincial Governments and the Governments of Indian States. Already units have been established in Partabgarh (United Provinces), Poonamalle (Madras), Najafgarh (Delhi) and Neyyattinkara (Travancore), and a scheme is under preparation for starting a unit in Bengal. The activities of these units have been described in greater detail in the report of the Public Health Commissioner, but it may be pointed out that their role is intended to be purely preventive. It is therefore important that in the health unit areas the

Medical Department should co-operate in providing the requisite curative facilities for the people; otherwise there is a danger of the health units losing their proper function and to become dispensaries rather than centres for the practice and propagation of preventive methods.

3. The disinclination of the private practitioner to settle in rural areas has been referred to in Section 2 of Chapter I and is not a state of affairs peculiar to India. A professional man who has passed successfully through an arduous and prolonged scientific education is not generally willing to reside in a remote country area where amenities are few and earnings meagre. The solution will, it is believed, be found in improving communications and increasing use of mechanical transport by the doctor who has initiative, while the sick man is himself by the same means able to travel to the nearest dispensary or hospital with less difficulty than is often imagined. The real problem is to deal with remote sparsely populated areas where the communications are poor and which are frequently almost inaccessible during certain times of the year, *e.g.*, in the rains. That problem still remains unsolved, but it should be stressed that every new road and every improved communication is a gain to the sick villager and a step forward in the solution of the rural medical problem. Some Governments, *e.g.*, Bengal and the Punjab, have considered proposals by which only doctors who have practised in rural areas for a certain number of years shall be recruited in Government service, or to grant scholarships on condition that the successful candidate shall serve for a prescribed period in a country district. It is doubtful if such schemes can be anything but temporary expedients, or that they will ever provide an efficient modern medical service for the village. The most promising method will be to subsidize the practitioner or to provide him with transport or travelling allowance such as is done in the Highlands and Islands Services of the North of Scotland and, under similar schemes, in certain Colonies.

4. The desire of the medical profession to improve the standard of education of the Sub-Assistant Surgeon or Licentiate class will influence the quality and methods of rural medical relief. In Madras, training for this class of doctors has already been abandoned, and it is the intention that entry to the medical profession shall be only the M. B. or Graduate standard. In some other provinces the standard of preliminary education is being raised to that of Intermediate Science of a University. Graduates are willingly entering service in the Subordinate Medical Service, where they are placed in charge of dispensaries, and such employment offers great possibilities both to the Graduate of Medicine and to the village.

5. Rural medical relief is or can be afforded by one of the following means:—

(i) *Fixed dispensaries.*—In every province there is a net-work of dispensaries maintained by Government, local bodies or municipalities, controlled by the Civil Surgeon of the District and located at suitable central sites. It is a rare thing, except in thinly populated areas, to find a village which is more than 10 miles from such a dispensary, the distance is usually less, but a criticism, applicable to practically all, is that the medical officer in charge is tied to his institution and is not permitted to make use of the improved road or rail communication which is available.

It is quite possible for the dispensary doctor to be given a few key villages which he can visit on certain days of the week, and for him to become a rural area doctor rather than one who sits at his headquarters and waits for the patients to visit him.

(ii) *Travelling dispensaries*.—The travelling dispensary can only be of use where the area to be covered is a limited one, thus enabling frequent visits to be paid. When used to deal with special diseases, e.g., travelling clinics connected with eye diseases, this form of medical aid is very valuable. A fully equipped travelling dispensary is expensive and a travelling doctor with fixed headquarter and with branch consulting rooms in a group of villages is a more useful unit.

(iii) *Rural medical practitioner*.—The essence of this scheme, which has been specially popular in Madras, is that the medical practitioner is engaged on a fixed annual subsidy with a small yearly allowance for medicine and equipment. In return for this he undertakes to treat the sick poor free, and he should be allowed travelling allowance or be given facilities for visiting surrounding villages. In most provinces the net-work of dispensaries is adequate, and money should be devoted to transform them into small cottage or country hospitals rather than to increase their number. In many cases it will be possible with advantage to use such an institution as the headquarters for the rural practitioner from which he could travel by train or motor car through the surrounding villages.

(iv) *Unqualified aid*.—In some provinces use has been made of the school master or other educated persons in the village, with a limited training, to give first aid to the villagers. On the whole, these schemes have not been successful, and after a short period the half-trained individual, like the compounder, is only too inclined to set himself up as a fully qualified doctor to the general disadvantage of the village.

(v) *Indigenous medicine*.—It is not within the scope of this Review to comment in any way upon the practice of indigenous medicine in the country. The desire in certain provinces to introduce registration for these practitioners and in others to introduce proper courses of instruction which will include necessary teaching in the basic medical science opens out possibilities for their more intelligent use in the villages.

6. No account of Rural Medical Relief could be complete without mention of the work done in India by Missionary Societies, which is described in Section 17 of this Chapter.

7. The efforts of the medical and health departments can, to mutual advantage, be co-ordinated, with the rural doctor as the common agent for both and every scheme for rural medical relief would be incomplete without such co-ordination. Treatment and prevention, as applied to medicine, are inseparable and the rural doctor is the man in whom the villager has confidence and to whose advice he will listen. If the dispensary doctor has more sick to attend to than he can cope with, any public health work requiring much time cannot be taken up by him as it will

inevitably restrict the amount of treatment he is able to give. The dispensary doctor cannot be used as a sanitary inspector, though there are certain public health duties which he can easily undertake, for instance, early detection and report of epidemic diseases, noting the relative incidence of the various communicable diseases, detection of villages in which vaccination is badly needed, reporting to the District Health Officer gross insanitary defects and cases of malnutrition among his patients and their family and propaganda for the improvement of health. The aim, on the whole, should be co-operation directed towards the greatest good of the people rather than rigid separation into compartments, since all efforts are directed towards the same objective of better health and less sickness.

8. The organisation of an efficient Rural Nursing Service is as important and necessary as the provision of doctors, and though the number of trained women available is still very inadequate, the profession is, if slowly, becoming more popular among educated Indians. In the United Provinces qualified midwives and nurses agreeable to settle down in rural areas are paid a subsidy of Rs. 100 per annum. In the Bombay Presidency the Government have sanctioned, as a part of the rural medical relief programme, a scheme providing for an increase in the number of qualified nurses and midwives attached to local board dispensaries. The Madras Government pay a subsidy of Rs. 300—400 p. a. to midwives working in rural areas. In the Delhi Province there are five maternity and child welfare centres in rural areas each in charge of a midwife or a nurse.

9. The various schemes for providing additional rural medical relief have been briefly narrated in the following paragraphs.

10. **Madras.**—In Madras Presidency additional rural medical relief is afforded through subsidised medical practitioners. All persons or members of families whose monthly income does not exceed Rs. 30 are entitled to free treatment and free supply of medicine at the dispensary. In other cases the medical practitioner is entitled to charge reasonable fees.

The District Boards can also utilise the services of medical practitioners in charge of subsidised rural dispensaries for the furtherance of public health work such as inoculation, verification of vaccination, births and deaths, the control of epidemic diseases, etc., on payment of an honorarium of Rs. 15 per mensem from the District Board funds, such work being done under the guidance of District Health Officers.

Besides medical graduates and licentiates, candidates who have acquired the diploma in medicine of the Government Indian Medical School, Madras, are also eligible for appointment to subsidised rural dispensaries. When Licentiates in Indian Medicine are posted to rural dispensaries they become automatically converted into Ayurvedic, Siddha or Unani dispensaries.

The Madras Government pay a subsidy of Rs. 300—400 per annum to midwives who visit pregnant women at their houses and attend on labour cases in rural areas. For attending on labour cases outside their villages, i.e., more than one mile, they are paid for by the Taluk Board Re. 1 for every non-paying case of labour.

Sir Frank Connor, in his note on the Madras Medical Department has noted as follows:—

“One of the most useful measures of medical relief adopted by Government during recent years is the scheme promulgated in their Order No 1522 P. H., dated 27th October, 1924. There are about 447 such subsidised dispensaries working in this Presidency at present. The Surgeon General has recommended further extension of this system and has forwarded to Government a list of places in rural areas in which medical aid is urgently required. It is hoped that funds will soon be available to open dispensaries in these areas and also for those rural dispensaries which have been sanctioned, but to which medical practitioners have not as yet been appointed.”

11. **Bombay.**—In 1936 the local Government introduced a scheme for subsidising allopathic medical practitioners in certain selected districts on the condition that they practise in rural areas. It has recently been decided to extend this scheme so as to have about 200 centres and to subsidise, for some of the new centres to be opened, *Ayurvedic* and *Unani* practitioners who may get themselves registered under the new legislation to be enacted for the registration of practitioners of the Indian systems of medicine. Under the scheme each allopathic subsidised practitioner will ordinarily be in charge of three or four villages easily accessible by road, or rail and will visit them on definite days of the week. He will receive Rs. 50 a month plus a fixed travelling allowance of Rs. 25 p.m., in addition to an annual grant of Rs. 350 for medicines and instruments. The *Ayurvedic* and *Unani* practitioners will receive Rs. 30 p.m. each plus a fixed travelling allowance of Rs. 15 p.m. each and an annual allotment of Rs. 150 for medicines. The Surgeon General will submit detailed proposals to the Government of Bombay in regard to the opening of the 200 new centres after consulting the District Local Boards, who have to bear one-fifth of the cost, the remaining four-fifths being borne by the Government. The ultimate annual cost of the proposals indicated above is estimated to be Rs. 1,63,500.

As part of the programme of medical relief in rural areas the local Government has also introduced a scheme providing for an increase in the number of qualified nurses and midwives attached to local board dispensaries. Under this scheme Government pays each district local board in the Presidency, excepting the Bombay Suburban District Local Board, a subsidy equivalent to 33½ per cent. of the cost of nurses or midwives actually maintained, subjected to a maximum of 3, in addition to those who were already in employment at the time of the introduction of the scheme. Each nurse or midwife employed under the scheme receives Rs. 50 p.m. as pay plus a house rent allowance of Rs. 10 p.m.

Government has also sanctioned\* as a part of their rural programme the opening of six tuberculosis clinics at the Civil Hospitals at Ahmedabad, Surat, Poona, Sholapur, Nasik and Belgaum, at a total annual cost of Rs. 14,680. Each clinic is to be in charge of an Honorary Medical Officer acquainted with the modern methods of treatment and prevention of tuberculosis on Rs. 50 p.m. each. A nurse attached to each clinic, is to be paid Rs. 100 p. m. *plus* a house rent allowance of Rs. 15 p. m., half of which is to be met by the Red Cross Society.

**12 Bengal.**—No scheme for the employment of subsidised medical practitioners in rural areas has been adopted in Bengal.

The Local Government, in pursuance of their scheme of rural re-construction financed from the Government of India grant sanctioned in 1935, a sum of Rs. 1,66,220 for the establishment of 139 Union Board Dispensaries in the 24 districts of Bengal, on the condition that the annual recurring expenditure, which was estimated at Rs. 850 per dispensary, is met by contributions from the District and Union Boards concerned, supplemented by a small fee of one anna on each new patient and 3 pies on each old patient. The scheme is generally appreciated by the rural people, but difficulties have been experienced in obtaining funds to meet the recurring cost of maintenance, as some District Boards are unwilling to contribute their share, while others are not solvent enough to do so.

It is considered that medical relief in rural areas in the province is yet inadequate and that every Union Board or a group of villages, where there is no Union Board, should have a dispensary of its own in the charge of a qualified medical man.

There are at present 1,102 hospitals and dispensaries in the rural areas. Besides there are reported to be 2,117 qualified private medical practitioners settled in these areas, thus making a total of 3,219 doctors in all.

**13. United Provinces.**—Additional medical relief in rural areas in this province is provided through subsidised medical practitioners.

A scheme for the subsidisation of qualified\* midwives and nurses agreeable to settling down in rural areas is also under trial. Such midwives and nurses are paid a subsidy of Rs. 100 per annum.

**14. Punjab.**—The Government of the Punjab decided in 1925 to open 375 new village dispensaries in order to provide adequate facilities for medical aid in rural areas. Of these 360 have already been opened and the opening of the remaining 15 has been postponed on account of paucity of funds.

The Local Government provided funds for the buildings of the dispensaries and the quarters for sub-assistant surgeons and dispensers and it also met the cost of initial equipment. It pays an annual grant of Rs. 2,500 for the maintenance of each dispensary.



The medical officers in charge of these dispensaries are engaged by District Boards on a five-year contract, but for the purposes of discipline, leave and transfer they are under the control of the Civil Surgeons and the Inspector General of Civil Hospitals. The scale of pay sanctioned for them is Rs. 70—4—180, Rs. 150, after 20 years' service and Rs. 175 after 26 years' service, but it is open to District Boards to vary this scale if they can obtain men at cheaper rates.

An experiment has been introduced in October 1937 whereby the Rural Dispensary Doctors in the districts of Lahore, Gujrat, Montgomery, Hoshiarpur and Karnal are placed under the district medical officer of health, with a view to encourage preventive propaganda side by side with curative work. The mere fact that the dispensary doctor is treating the sick in the village, makes his advice regarding general health work more readily acceptable. The medical officers in charge of Rural Dispensaries are required to tour at least twice a week in the area within four miles from the dispensary and are paid a fixed Travelling Allowance of Rs. 10 p. m.

As an experiment two rural dispensaries in each of the four districts in the Punjab have been converted into subsidised dispensaries.

**15: Central Provinces and Berar.**—There are 164 rural dispensaries in addition to 43 travelling dispensaries, the latter being under the control of the Director of Public Health. The officer incharge of the travelling dispensary has the licentiate qualification and is designated as "Sub-Assistant Health Officer" and in addition to the sanitary and health duties, he affords relief to the people on the curative side also. Dispensary treatment is often beyond the reach of the rural masses, and for more than 3 months during the rainy season many villages are cut off during the most unhealthy part of the year when malaria and bowel diseases are at their climax.

In 1936 as a part of the Rural Reconstruction scheme, a sum of Rs. 15,000 was allotted for rural medical relief out of the funds allotted for the purpose by the Government of India. A further sum of Rs. one lakh has been allotted from the same source in 1937 and it is proposed to start shortly 30 more cheap plan dispensaries for rural areas. The principal difficulty is that of finding funds for meeting the recurring expenditure involved in the maintenance of these dispensaries.

The scheme of subsidised dispensaries was tried on a limited scale, but had to be abandoned as it did not prove a success.

**16. Bihar.**—Medical relief in rural areas in this province is practically confined to District, Sub-divisional and District Board dispensaries, a very few private practitioners and indigenous doctors, vaidu, hakims etc. Various efforts were made in the past to induce doctors to settle in the villages and small towns by giving them a subsidy but it has not proved a success.

17. **Assam.**—The rural dispensaries in Assam are mostly in the charge of Sub-Assistant Surgeons, who serve within a radius of 10 miles from each dispensary. The Local Boards have also employed medical graduates in certain selected rural dispensaries.

A scheme for the appointment of subsidised medical practitioners in rural areas not served by any dispensary has very recently been adopted.

18. **Orissa.**—The facilities available at present for rural medical relief in this province are not adequate, there being on an average, only one medical institution for every 43,859 of population. There are eight subsidised rural dispensaries in the Ganjam and Koraput districts and ten in the districts of North Orissa. The Local Government have under consideration a scheme to subsidise, besides Allopaths, practitioners of the Homoeopathic, Ayurvedic and Unani systems, who agree to settle down in villages.

Under the new scheme the Medical Officer in charge of the Rural Dispensary is, in addition to providing medical relief, entrusted with the work of developing rural sanitation in the village where the dispensary is situated and its immediate surroundings, the cultivation of a sanitary and a civic consciousness and formation of minor health unions, etc. He is also expected to look after the general well-being of school children, anti-malarial work in the circumscribed areas, organisation of Health and Baby Week celebrations, Maternity and Child Welfare work, assistance in the collection of vital statistics and in the vaccination work of the Health staff as far as possible. In other words, the dispensary doctor is to assume the role of a "health guardian" of the villagers and to afford the necessary guidance and instruction to the uneducated population within his limited area. This does not absolve the Health Officer and his staff from their responsibility for their legitimate duties, on the preventive side of medicine, nor is it intended to amalgamate the Medical and Public Health Departments, but the aim is only to secure proper liaison and co-operation between the officers and staff of the two departments.

19. **Sind.**—The Government of Sind have introduced, with effect from 1st October 1937, a scheme for providing medical relief in rural areas, which aims at the employment of five subsidised medical practitioners in each district.

The subsidised medical practitioner is under an obligation to do inoculation or vaccination work or such other duty as may be entrusted to him by the Civil Surgeon or Medical Officer or the President of the District Local Board in times of epidemics. Such duties are to be performed free of charge provided that the persons to be inoculated visit the dispensary. If the whole-time services of the Medical Officer are required in times of severe epidemics, he will be paid the same remuneration as an Epidemic Officer.

**20. Delhi.**—There are six District Board or Municipal rural dispensaries in the Delhi Province. The aim is to provide a dispensary within 5 miles of every village in the Province. There is in addition, King George V Travelling Dispensary which works among 262 villages not served by fixed dispensaries and stays for about a fortnight at each suitable centre. The Travelling Dispensary is in the charge of a Sub-Assistant Surgeon who has a ward orderly to assist him. The Sub-Assistant Surgeon treats ordinary patients and encourages the seriously ill ones to go to hospital. In addition, he also does propaganda work in connection with public health and prevention of diseases. The doctors in charge of the fixed dispensaries are also required to do public health work and to inspect school children in their areas.

There are five Maternity and Child Welfare centres in the rural areas of Delhi, each in the charge of a midwife or a nurse, who works under the Chief Health Officer.

There is no scheme for the employment of subsidised medical practitioners.

**21. North-West Frontier Province.**—Medical aid in rural areas in this province is at present provided in the following manner:—

- (a) By establishing fixed rural dispensaries in selected villages, the population of which is comparatively large and which are surrounded by a number of thickly populated villages.
- (b) By subsidising private medical practitioners in selected villages, At present 16 such practitioners are subsidised in different villages. Medical relief is being provided to 16 villages in this way.
- (c) By placing doctors attached to existing hospitals in visiting medical charge of villages nearby. These visits are restricted to once or twice a week. About 40 villages are being catered for in this way.
- (d) By a travelling dispensary in a motor-lorry. This dispensary is a complete unit consisting of a doctor, two compounders and menial staff. There are at present two such dispensaries, one in Peshawar district and the other in Hazara district. A tour programme for the whole district is drawn up in consultation with the Deputy Commissioner of the district and circulated in advance to enable the villagers concerned to know when the moving dispensary would visit their village.

**22. Baluchistan.**—There are no arrangements for rural medical relief in Baluchistan, nor does the system of subsidised practitioners obtain. Arrangements are, however, being made for the Sub-Assistant Surgeon in civil dispensaries to visit villages nearby. In the malarious season free distribution of quinine is made by the Revenue Staff.

23. **Ajmer-Merwara.**—Rural medical relief in Ajmer-Merwara hardly exists, but plans are under consideration for putting up dispensaries at Pushkar, Ramsar and Sarwar. A scheme for the employment of subsidised practitioners in two villages is also being considered.

# Rural Medical Relief. (Excluding District Headquarters).

## Subsidized Rural Practitioners.

Name of Province.	Pay.	Annual grant for drugs and instruments.	Controlling authority.	Method of appointment of practitioners.	Duties		Method of Finance, Government grant, local effort, etc.	Remarks.
					Touring or area.	Health		
1	2	3	4	5	6	7	8	9
	Graduates Rs. 600 p. a., L. M. Pa. Rs. 500 p. a.	Rs. 360 p. a.	Surgeon General.	Practitioners appointed in consultation with D. M. Os. with approval of the S. G.	Within radius of 5 miles.	Yes, on payment of Rs. 15 p. m.	Subsidy paid from Provincial funds. In exceptional cases local body pays in addition 50 per cent. of Government Subsidy.	419 rural medical practitioners at work.
Bombay	Rs. 50 p. m. plus fixed Travel Allowance.	Such amount as may be fixed by Government from time to time subject to a minimum of Rs. 350 p. a.	President D. L. B. and C. S. of the District.	Selected by the President, D. L. B. and C. S. of the District subject to final approval of the Surgeon General.	3 or 4 villages.	Not definitely prescribed so far.	Half to be borne by the D. L. B. and half by Government.	So far only 5 dispensaries have been opened in the Districts of (1) Ahmednagar, (2) Nashik, (3) West Khandesh, (4) Belgaum, and (5) Ratnagiri.
Bengal United Provinces.	Graduates Rs. 1,000 p. a.; Licentiates Rs. 600 p. a.; an additional sum of Rs. 100 p. a. is also given for engaging a midwife.	Rs. 360 p. a.	Inspector General of Civil Hospitals.	By local Boards in consultation with the Civil Surgeon of the District.	...	...	Subsidy "as shown under "pay" is paid by Government and Annual grant for drugs and instruments is paid by the local Board.	28 medical practitioners at work.
Punjab	Graduates or Licentiates Rs. 600 p. a.	Rs. 500	Inspector General of Civil Hospitals.	Registered Medical Practitioners appointed.	No touring	...	District Boards given grants-in-aid.	8 subsidized dispensaries functioning for which Government pay the subsidy, 1 for which D. B. pays.
Central Provinces. Bihar.	Rs. 25	Annual grant not fixed. The doctor is given free quinine and has to provide medicine himself.	District Board.	No order on the subject.	The doctor is required to inspect local schools to give lantern lectures to students and to treat free acute cases of malaria. He engages in free private practice.	District Board finance the Disbursement.	There are only five subsidized medical practitioners in one district at present.	

Subsidized practitioners scheme tried but proved a failure.

Area.	Rs. 25 p. m.	Rs. 150	Civil Surgeon	Registered Medical practitioners to be appointed.	Radius of 5 miles.	Yes, Epidemic duty, if required.	Financed by Government.	27 subsidized medical practitioners to be engaged.
Sind	Rs. 50 p. m.	Rs. 400	President, District Local Board.	Appointed by the President, D. L. B., in consultation with the Civil Surgeon and subject to the approval of the Director of Health Services and Inspector General of Prisons.	..	Yes	Government grant.	40 rural medical practitioners were to be appointed. This scheme has proved unpopular.
Orissa	L. M. Ps. Rs. 35 p. m. (North Orissa). Rs. 500 to Rs. 600 p. a. (in South Orissa).	Rs. 300	Director of Health and Inspector General of Prisons, Orissa through C. Ss. and Chairman of District Boards.	Registered Medical practitioners by selection.	Area	Yes	Subsidy is paid by Government and medicines and instruments are paid for by Local Boards.	In addition to eight subsidized rural dispensaries, in South Orissa, 4 more such dispensaries have since been sanctioned by Government for North Orissa which will function from the next financial year. In the case of these 4 dispensaries, Government will contribute half of the monthly subsidy and the other half plus the cost of medicines (Rs. 300) will be paid by the Local body, concerned.
Delhi			No scheme for subsidized practitioners exists.					
North-West Frontier Province.	Rs. 35 p. m. plus Rs. 5 p. m. fixed Traveling Allowance.	Rs. 200	I. G. C. H., N. W. F. P.	By selection.	Radius of 5 miles.	No	Except for 3 places where local effort is made to maintain the subsidized dispensaries, the expenditure in all other cases is wholly defrayed by Government.	There are 16 subsidized medical practitioners at work 7 of whom have also been appointed as medical inspectors of Local Schools on payment of a further subsidy of Rs. 10 p. m. each.
Baluchistan			No arrangements for rural medical relief exist.					
Almer-Merwara.								A scheme for medical relief through the agency of subsidized medical practitioners is under consideration.

## 17. MISSION MEDICAL ACTIVITIES.

• Medical Missions have played an important part in medical relief and particularly so in Mofussil areas. • The first regular medical missions are said to be those founded and supported by the citizens of the United States in Southern India in 1830-40.

Particulars regarding mission institutions in India (excluding Burma and Ceylon) run and aided by different Missions are given in the tables contained in Appendix II. It will be observed that 182 hospitals, 111 dispensaries, 54 leper asylums and 9 sanatoria were functioning during the year 1936. These figures do not represent all the institutions but stand only for those which responded to the questionnaire issued by the Christian Medical Association of India, Burma and Ceylon. • Hospitals with 10 or more beds for in-patients have been classed as hospitals and those with less than this number have been put under dispensaries. There were institutions that did not supply figures.

These collected figures show that of a total yearly expenditure of approximately Rs. 47.62 lakhs by Missions on medical work a sum of Rs. 20.42 lakhs is found by fees and gifts from patients, Rs. 6.43 lakhs from Government and Municipal grants and Rs. 20.77 lakhs from private mission funds.

Table showing particulars regarding Mission Medical Institutions.

Particulars.	Hospitals. 182.	Dispensaries. 111.	Asylums. 54.	Sanatoria. 9.
Number of Beds— . . .	11,254	229	3,396	800
Doctors—				
Foreign . . . . .	219	27	14*	8
National . . . . .	276	38	30	16
Nurses—				
Foreign . . . . .	237	26	11	9
National . . . . .	693	35	11	42
Student . . . . .	1,551	16	..	..
Midwives—				
Qualified . . . . .	42	5	..	..
Student . . . . .	209	67	..	..
Compounders—				
Qualified . . . . .	242	57	44	6
Student . . . . .	128	2	..	..
In-patients . . . . .	2,05,288	2,635	11,344	1,650

\* Includes 4 visiting doctors.

Particulars.	Hospitals, 182.	Dispensaries, 111.	Asylums, 54.	Sanatoria, 9.
Out-patients—				
Individuals treated . . .	16,87,054	2,68,434	8,180	3,756
X-Ray Installations . . .	24	1	..	3
Operations—				
Major . . . . .	36,881	840	437	..
Minor . . . . .	1,38,432	7,513	2,391	..
Combined . . . . .	3,545	..	..	1,160
Obstetrical Cases . . . . .	22,672	601	..	..
Fees and Gifts from Patients .	Rs. 17,83,079	Rs. 51,846	..	Rs. 2,07,822
Grants—				
Government . . . . .	Rs. 1,35,118	Rs. 15,242	Rs. 3,94,419	Rs. 91,758
Municipal . . . . .	Rs. 5,830	Rs. 1,160	..	..
Total Current Expenses . .	Rs. 35,58,276	Rs. 2,77,062	Rs. 6,00,320	Rs. 3,27,025

## 18. RAILWAY MEDICAL DEPARTMENTS.

Almost all the principal railways in India maintain their own Medical Department. The following table represents facts and figures in regard to the medical and nursing personnel employed by the various Railways and the number of hospitals and dispensaries maintained by them.



Name of Railway.	Medical Personnel.						Number of Nurses.	Hospitals		Number of Dispensaries.	Expenditure on Medical Department during 1937.
	Superior.		Subordinate.					Number.	Beds.		
	Europeans.	Indians.	Europeans.	Indians.							
Assam Bengal . . . . .	3	2	...	46	9	7	88	17	Rs. 2,12,048		
Bengal and North Western . . . . .	3	...	...	28	11	5	75	10	1,64,381		
Bhilbhand and Kumaon . . . . .	...	1	...	8	3	1	20	5	44,181		
Bengal Nagpur . . . . .	4	3	1	178	20	5	182	48	6,69,627		
Eastern Bengal . . . . .	1	5	...	61	18	14	238	26	7,64,000		
East Indian . . . . .	2	2 A. M. O. 9	...	238	36	8	252	56	8,66,300		
Great Indian Peninsula . . . . .	3	10	...	162	31	7	196	30	5,39,384		
Madras and Southern Mahratta . . . . .	3	3	...	64	10	4	116	33	5,39,006		
North Western . . . . .	5	8	3	116	18	11	235	60	7,95,109		
South Indian . . . . .	2	3	4	634	5	5	86	25	3,58,992		
H. E. H. Nizam's State . . . . .	3	1	...	29	7	3	132	5	1,91,392		
Bombay, Baroda and Central India . . . . .	4	4	...	154	14	11	168	35	5,66,000		
Total	33	52	8	1,718	182	81	1,788	350	57,00,870		

### CHAPTER III.

#### Co-ordination between Government Medical and Public Health Departments.

The activities of those responsible for medical relief and prevention of disease are so closely inter-related that it is impossible to draw any sharp line of distinction between them, and the necessity for co-ordinating their activities is now fully recognised. No apology is therefore required for a brief reference to this subject which has attracted the attention of both administrations and of authorities concerned with medical education. The Central Board of Health at its first meeting passed a special resolution which stressed the need for co-operation between Medical and Public Health Departments, and recognising the important position which prevention occupies in every phase of medical practice, both the Medical Council of India and the General Medical Council of Great Britain recommend that "throughout the whole period of study the attention of the student should be directed to the importance of the preventive aspects of medicine".

2. In most countries all branches of medicine are administered by one Health Ministry with separate higher directing staffs, and India is in fact peculiar in the extent to which in some areas the activities of medical and public health departments have been separated, or in a few cases even divorced from each other. For this result the history of the development of modern medicine in India is partly responsible, while the magnitude of their tasks, the limited facilities available, and the need for expanding the efforts of both require concentration to a large extent on their own affairs. The inadequacy of existing arrangements has been outlined both in this Review and in the annual reports of the Public Health Commissioner.

\*Sir John Megaw in 1933 wrote:—

"There are historical reasons for the 'diarchy' which exists in the medical and public health departments. In the early days of the development of modern medicine in India disease prevention was scarcely attempted except in the case of vaccination against small-pox. The view which held the field at that time was that the people had not yet been educated up to the necessity for preventive medicine and that any attempt to enforce unpopular public health measures would do more harm than good. Medical effort was therefore concentrated on the establishment of hospitals and dispensaries for the treatment of the sick. When public health began to receive its due share of attention the physicians and surgeons were already strongly entrenched so that public health workers found it difficult to awaken any enthusiasm for preventive medicine amongst the administrative medical officers who were interested in their own specialities. It was therefore necessary for the public health workers to put up a vigorous fight to secure autonomy and, generally speaking, the result has been an undesirable cleavage between medical relief and public health.

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\* Some points connected with Medical Administration in India.

"The position is now very different. The prevention of disease has come to be universally recognized as being the chief aim of medical work and most of the administrative medical officers are now enthusiastic advocates of disease prevention; indeed some of them have been specialists in public health for the greater part of their previous service. All of them state that they are prepared to co-operate with the Directors of Public Health and to insist on a similar co-operation on the part of the members of their staff. This combination of effort does not mean the swallowing up of one department by another, nor does it imply the elimination of the principle of division of labour. It does mean that whenever it is in the interests of efficiency and economy, the medical man ought to engage both in medical relief and public health work and that ever increasing emphasis must be laid on disease prevention."

3. Opening a discussion on the organisation of Health Departments at the first meeting of the Central Advisory Board of Health on the 23rd June 1937 the Public Health Commissioner (Colonel Russell) drew attention to the need for co-ordination in the following words:—

"I think it will be admitted on all hands that a Public Health Department has a number of functions which are distinct from those of Medical Department and that these functions are best performed by trained health officers who can give them their full time. It is unnecessary here to give a detailed list of these functions, but I may mention as illustrations the collection of vital statistics, the control of epidemics and the planning of water supplies, of drainage schemes and of conservancy arrangements. These and others of the kind can only be properly carried out by officers of a Public Health Department, who can spend a large proportion of their time on inspection tours and who can go on tour at once when an emergency arises. I do not wish to elaborate this point further as I hope that it is generally agreed that every town of any size and every district requires a trained health officer if the standard of environmental hygiene is to be steadily raised and if progress in general public health is to be made. On the other hand, there are certain subjects, such as tuberculosis and maternity and child welfare, in which the Public Health and the Medical Departments are mutually concerned and in regard to which there must be co-operation and co-ordination of effort. For this kind of subject the Civil Surgeon and the Medical Officer of Health should be closely associated, working together in a common cause, and unless that association is achieved, in one way or another, progress in preventive medicine must be correspondingly retarded".

4. Other speakers also drew attention to this aspect of health administration and the meeting unanimously adopted the two following important resolutions:—

- (i) "The Board desires to bring to the notice of all Governments, Provincial Medical Councils and the Medical Council of India

the necessity for improvement in the teaching of hygiene and public health as part of the Medical Colleges and Schools curricula for medical qualifications and registrations".

- (ii) "In order to promote co-ordinated effort in preventive medicine between the Medical and Public Health Departments, the Board recommends the establishment of Central Health Board (or Committee) at the headquarters of each province and of a Health Bureau (or Committee) in each district."

5. While a satisfactory degree of liaison exists between the Directors of Medical and Public Health Departments, it is in the district, in the sphere of the Civil Surgeon and the District Health Officer that health presents its most important problems and where there is the greatest need for co-operation. Separate higher directing staffs technically qualified, co-ordinated by an administrative head, are essential for efficiency, but when we come down to the smaller district unit, such as the village dispensary, it is certain that India can never afford to maintain two experts for each small centre of her population.

6. While, therefore, the ideal is unattainable for financial and other reasons, the most promising line to follow is that of the District Health Bureau recommended and outlined by the Central Health Board, on which the Civil Surgeon and the public health expert of equal standing, can co-ordinate all their activities. Further the dispensary doctor must be brought more intimately into the local health picture and his usefulness increased by improving the teaching of hygiene and public health in medical schools and colleges. In their knowledge of the people and the confidence in them, gained by frequent contact, the civil surgeon and the dispensary doctor are valuable assets which should be made full use of.

## CHAPTER IV.

### Tuberculosis.

Details of the extent to which tuberculosis is prevalent in India will be found in the Public Health Commissioner's reports, but the extent of the problem and the inadequacy of the efforts which have so far been made to meet it necessitate a short reference.

2. Unfortunately the available data are inadequate, and our chief evidence regarding its widespread incidence comes from Dr. Lankester's report in 1920; a note by General Megaw based upon reports collected from medical officers and others throughout India; the figures collected from limited surveys in different areas, and conclusions which have been reached in the Public Health Commissioner's reports.

3. Dr. Lankester, who carried out an inquiry into the causes, prevalence and possible measures for prevention of tuberculosis in India from July 1914 to June 1916 observed in his report which was published in 1920:—

"To sum up: the impression left upon the mind after careful inquiry, with comparison of such statistics as are available, is that many large areas in India, which 40 years ago were practically "virgin soil" to tuberculosis, have now become to a considerable extent infected; that phthisis has been for generations, probably centuries, a common disease of the larger cities, yet even in these there has been considerable actual increase during the last 40 years; that while in smaller towns and in the village districts it was formerly comparatively rare or even absent, yet in these during a similar period the disease has made its appearance and spread widely. The increase has been most marked in connection with those centres which have shown the greatest commercial and educational development, and in the village districts which have been linked up with them by direct lines of communication."

4. Major-General Sir John Megaw in 1933 estimated that there were probably two million cases of tuberculosis in India. His conclusions were:—

"Tuberculosis is evidently very widespread throughout the villages of India but is specially serious in Bengal, Madras, the Punjab and Bihar and Orissa. Pulmonary tuberculosis seems to be much more common than extra-pulmonary except in the United Provinces and Bombay. The low incidence in the Central Provinces is remarkable and is perhaps associated with the sparse distribution of the population and with defective means of communication."

"Tuberculosis is well known to be exceedingly prevalent in the cities and large towns but little is known as to its incidence in rural areas. The evidence of the dispensary doctors goes to show that the disease is very widely disseminated throughout India. From other sources of information it seems likely

that the disease is increasing steadily and rather rapidly. The estimate of just over two million cases of tuberculosis in India as a whole is probably much too low; every large town is known to be very heavily infected, and therefore an estimate which is based solely on the incidence of the disease in the agricultural villages must be unduly favourable.

"Tuberculosis is a disease which has very special importance in India for the reasons—(1) it is likely that many villagers have never come in contact with infection and therefore are "virgin soil" on which the disease is likely to thrive, (2) the infection is being steadily spread from the larger towns to the villages, (3) the disease constitutes a reliable index of the standards of life which prevail in countries in which it has become established for long periods of time; it spreads rapidly among ill-nourished and badly housed populations and correspondingly diminishes when the people are well fed, well housed and cleanly in their habits."

5. The Public Health Commissioner, while reviewing the tuberculosis problem in India in his recent annual reports, drew particular attention to the absence of accurate statistics regarding the incidence of the disease and emphasised the necessity of tuberculosis surveys for securing reliable information. His conclusions are briefly set out below:—

"No reliable information is available regarding the extent of tuberculosis infection in India. It has been estimated by workers in Bengal that, in that province alone, there are a million persons suffering from the disease. This is an alarming figure but it has to be remembered that it is only an estimate. It has been suggested that tentative figures for tuberculosis mortality might be arrived at by assuming that from 10 to 20 per cent. of the deaths under 'fevers' and 20 per cent. of those under 'respiratory diseases' are actually due to tuberculosis, but such methods are obviously unsatisfactory. It is more than desirable that accurate information should be available and this can be obtained only by making detailed surveys of sample groups of the population.

"Whilst there is general agreement among tuberculosis workers that the rural population is relatively more susceptible to the infection than those of urban and industrialised areas and that the facilities for rapid travel, which motor buses have introduced even into the remote corners of rural India, have enhanced the danger of a progressive spread of the disease, there is urgent need for more precise information regarding the special predisposing etiological factors which influence its spread among different communities. Properly conducted surveys can provide such information and they must therefore precede the formulation of effective plans of campaign against the disease".

6. Other observers estimate an even higher incidence of the disease, notably Dr. Ukil who, writing about Bengal in 1937, observed:—

"The annual deaths from tuberculosis are estimated to be in the neighbourhood of 100,000. The number of persons suffering from this disease, at any given time, is estimated to be 9 times

the number of deaths. On the basis of this calculation, one million people must be temporarily or permanently invalided by the disease, 20 per cent. or 200,000 of whom are supposed to constantly scatter the infection, through sputum or other body discharges, to healthy people around them".

7. \*It is generally estimated that there ought, in any country, to be as many beds available for tuberculous patients as there are deaths from tuberculosis during the year. At a rough estimate there are 500,000 deaths a year from tuberculosis, which means, on the above method of calculating the necessary accommodation, that there should be that number of beds, i.e., 500,000 available in India in hospitals or sanatoria for the treatment of tuberculosis. The table at the end of this chapter shows the number of beds available in India for tuberculosis patients together with the number of clinics which have been established to deal with the disease. In all India there are only 77 clinics and 39 sanatoria and the total number of beds available is approximately 2,768.

8. It is obviously impossible with the limited financial resources available to provide the institutional accommodation in India which the League of Nations Report considered necessary. We must therefore concentrate, as far as possible, on methods which will safeguard future generations while providing as much aid as possible both by institutional and domiciliary treatment to the infected patients. An unofficial committee of doctors on behalf of the King George Thanksgiving (Anti-Tuberculosis) Fund considered this problem in all its aspects and finally drew up the following proposals for a campaign against tuberculosis:—

"(1) *Tuberculosis Dispensary Clinic*.—This institution occupies a front position in the organisation for combating Tuberculosis in a given area and is the centre for preventive work.

In urban areas Tuberculosis Dispensaries should be established having their own staff under a Medical Officer, either full time or part-time. Except in cities sufficiently large to warrant the establishment of a separate building fully equipped and staffed, it is advisable to locate the Tuberculosis Dispensary within the boundaries of a well established hospital, in order to utilise the facilities for X-ray diagnosis and surgical work that should be obtainable there.

In rural areas, on the other hand, with scattered and less developed communities, the organisation of separate Dispensaries devoted solely to tuberculosis work is impracticable and here tuberculosis clinic should be opened in existing dispensaries on one or more fixed days each week.

Emergency beds, attached to a Tuberculosis Dispensary Clinic are useful for patients requiring observation for a day or two or for minor surgical treatment, but patients should not ordinarily be retained in such beds for more than a week.

(2) *Domiciliary Treatment*.—Owing to the small number of beds available for tuberculosis cases in general hospitals and special tuberculosis institutions, domiciliary treatment must perforce be resorted to in a majority of cases for many years to come. In home treatment and care of patients and their families, the Health Visitor and the Care Committee play an important part. These are discussed below. The organisation of open air centre where patients can be kept by day may be helpful especially when patients come from congested areas.

(3) *Health Visitor*.—Formerly known as the Tuberculosis Nurse this worker is preferably a woman and a trained nurse. Owing however to the great shortage of women nurses in India it will be necessary in many areas to employ others to

\* General Principles governing the prevention of Tuberculosis—Quarterly Bulletin of the Health Organization, League of Nations, Vol. I, No. 4, December 1932.

perform the duties of tuberculosis Health Visitor. In some provinces and states educated girls who have passed the matriculation examination may be given a short specialised course of training at a central well-organised dispensary and when considered qualified may be posted as Health Visitors. In other places it may be found necessary to utilise men for this work and Sub-Assistant Surgeons, Sanitary Inspectors or even exceptionally efficient Dispensers or Dressers may be employed. In any case it seems desirable to observe the principle of having a uniform rate of pay in each Provincial or State Area for any person performing the duties of a Tuberculosis Health Visitor.

(4) *Care and Aftercare Committees.*—These should be organised on a voluntary basis in connection with all Tuberculosis Dispensaries and should consist of non-officials and officials. The Committee meets at the dispensary where the circumstances and difficulties of patients requiring aid are explained. Each case is considered on its merits, given financial assistance if required, and where desirable, helped to find suitable employment. Without such Committees, composed of members who are familiar with the life and difficulties of patients and their families the work of a Tuberculosis Dispensary is seriously hampered and its scope restricted.

(5) *Training of Tuberculosis Staff.*—The success of all efforts to deal with the problem will depend on the provision of an efficient and sympathetic body of workers. The establishment of suitable training centres for doctors, health visitors, and members of care committees should therefore be accepted as an important function both for the Central and for the Provincial organisations.

The training should be undertaken at Provincial and State Centres in major Provinces and States, while smaller units should look to their adjoining large neighbours or to the central organisation for help in this respect.

(6) *Hospitals and Sanatoria.*—The removal of the infective case from close contact with his family and associates is one of the most effective measures for preventing the spread of the disease. Unfortunately it is expensive. For cases requiring prolonged treatment in bed accommodation arranged on a District basis is advisable, tuberculosis wards in existing hospitals being constructed for the purpose.

A large city may maintain its own Tuberculosis Sanatorium or combined institution comprising hospital and sanatorium with an after care organisation, but generally sanatoria should be organised on a State or Provincial or even on divisional basis. It is desirable that all these institutions should be of a simple type of construction.

In some areas, the establishment of tuberculosis colonies adapted to Indian conditions may be possible.

(7) *Preventorium Methods.*—The value of open air schools in combating tuberculosis is proved and any steps in this direction are of value. Similarly the establishment of play grounds and open air shelters are of help in the campaign.

(8) *Co-operation.*—The Central and the Provincial and State Associations will require to co-operate closely with all organisations, official and non-official, interested in the Tuberculosis problem. Government Departments such as the "Medical" and "Public Health" are most closely concerned and a great deal of the actual work will be carried out by and through them. The Education Department and official agencies for Development and Rural Reconstruction should also be consulted. Among voluntary agencies the Red Cross Society, St. John Ambulance Association and Maternity and Child Welfare organizations are interested and have been carrying out active Tuberculosis work in a number of areas. Charitable and social organisations which are concerned in any way with the problem should be approached to help. The best way to link up all these bodies is to appoint representatives from them on the Council of the Association.

It should be remembered that the success of all tuberculosis measures will depend on obtaining the co-operation of the entire medical profession, especially the general practitioner.



(9) *Funds*.—The various activities mentioned in this note are all legitimate objects upon which the funds of the Association may be spent. In allocating funds in the first instance an endeavour should be made to spend not less than 75 per cent. on institutions and organisations primarily of a preventive character (the chief of which is the Tuberculosis Clinic) and in this way districts will derive immediate benefit from the sums contributed by them.

(10) *Housing*.—In view of the widespread existence of slum conditions, which contribute so largely to tuberculosis in urban areas and of the tendency that unfortunately persists towards the creation of more overcrowded areas, Tuberculosis Associations should take a leading part in stimulating measures directed towards the removal of existing slum conditions and their prevention in future.

(11) *Education Work*.—All kinds of educative work on the Control and Prevention of Tuberculosis fall within the scope of a Tuberculosis Association and should form an important part of its activities."

9. A note on the constitution and activities of the King George Thanksgiving (Anti-Tuberculosis) Fund will be found in Chapter XI. With a limited income the activities of the Fund have been confined to propaganda, education and preventive work. In these spheres the Committee have considered the Tuberculosis Dispensary Clinics to be of the greatest importance and have widely circulated a pamphlet (The Tuberculosis Clinic) in which its objects and functions have been defined as follows:—

**"Objects.**—It is the centre of anti-tuberculosis effort in a town or rural area. The primary object of the clinic is prevention of disease but its organisation must never be other than elastic and ready to meet changing circumstances. It stands first for diagnosis, to collect information as to the spread of disease, to discover the early cases of pulmonary tuberculosis and to undertake observation of contacts, it seeks to get into touch with those who may have been infected and tries to prevent disease arising as a result of infection. Its activities should be co-ordinated with the local hospitals, the local health authorities, and with unofficial organisations concerned in the promotion of health, such as the Indian Red Cross Society, Maternity and Child Welfare Committees, etc. The co-operation of other local charitable organisations should also be sought.

**"Functions.**

(i) *Detection*.—It is an organisation which will seek out and deal with tuberculosis patients, their families and contacts.

(ii) *Diagnosis*.—It is a specialist organisation designed for the diagnosis of patients suffering from tuberculosis.

(iii) *Prevention*.—It is a health organisation including on its staff personnel whose duty is to visit patients' homes for the purpose of giving advice and arranging for the examination of contacts with a view to arresting the further spread of the disease.

(iv) *Education*.—It should provide education primarily for infected patients, their families and contacts, but also for the general public, on matters connected with tuberculosis.

(v) *Survey*.—It should organise surveys to estimate the extent of the disease in its area.

(vi) *Co-ordination*.—It should, with the assistance of local hospitals, local bodies, health and child welfare authorities, co-ordinate all the anti-tuberculosis activities in its area.

(vii) *Treatment*.—As far as possible it should treat tuberculosis patients attending the clinic, advise them as regards home treatment and, where possible, arrange for sanatorium treatment and other benefits.

The provision of facilities for open air and solarium treatment for a limited period of the day for patients or contacts attending the clinic is an activity well within its scope.

Table showing number of clinics and beds for tuberculosis patients in India.

Province.	Name of Anti-Tuberculosis Association in the Province.	No. of T. B. Dispensaries and Clinics.	Tuberculosis Sanatoria.		No. of Beds.	No. of beds reserved in General Hospitals for T. B. patients.	Special T. B. Officers if any.
			Name of Sanatorium.	Designation of Managing Body.			
Madras	Anti-Tuberculosis S u b-Committee, Madras Presidency Branch, Indian Red Cross Society.	9	1. Government T. B. Hospital, Royapettah.	Madras Government	80	About 157	
			2. Government T. B. Sanatorium, Tambaram.	Madras Government	40		
			3. Union Mission T. B. Sanatorium, Madnapalli, District Chittoor.	Union Mission	250		
			4. Virantipuram T. B. Sanatorium, Rajahmundry, Godavary District.	U. L. Mission	50		
			5. T. B. Sanatorium, Perundurai, Coimbatore District.	.....	...		
			6. Shakuntala Memorial T. B. Sanatorium, Guntur.	.....	...		
			1. Turner Sanatorium, Bhai Wada Hill, Parel, Bombay.	Bombay Municipality	40	About 120.	
			2. The Hindu Sanatorium, Karla	.....	40		
Bombay	Anti-Tuberculosis S u b-Committee, Indian Red Cross Society, Bombay.	9	3. Bel-Air Sanatorium, Dalkeith, Panchgaul.	Trust managed by a Committee.	140		
			4. Hill-side Sanatorium, Vengurla	.....	35		
			5. Sir William Wanless T. B. Sanatorium, Miraj.	.....	131		
			6. Maheshitra T. B. Sanatorium, Panchot, Nasik.	Poona Anath Vidyarthi Griha Society.	10		
			7. Dr. Bahadurjee Memorial Sanatorium, Deolali.	Private Concern	17		
			8. T. B. Sanatorium, General Hospital, Hukeri Road, Belgaum.	The Karnatak Health Institute.	20		

Bengal	Tuberculosis Association, Bengal, Calcutta.	7	1. T. R. Hospital and Sanatorium, Jadabpur. Darjeeling.	Calcutta Medical Aid and Research Society. Managing Committee.	120	About 175	There is a proposal to appoint a specialist Anti-T. B. Officer.
United Provinces	Anti-Tuberculosis League, Lucknow.	3	3. Kuseong Sanatorium	Calcutta Medical Aid and Research Society.	20		
			1. K. E. VII Sanatorium, Bhowali, Naini Tal.	K. E. VII Memorial Consumptive Sanatorium Trust. A private concern	140	A few beds in certain hospitals.	
			2. Hulerust Sanatorium, Jeode Kote, Gethia, Naini Tal.		30		
			3. The Sanatorium, Almora	Run by Dr. Miss E. C. Cousins.	35		
			4. Sri Mangla Prasad Sanatorium, Sarnath, Benares.	Mangla Prasad Trust	12		
			5. T. B. Hospital, K. G. Medical College, Lucknow.	.....	44		
			6. T. B. Hospital, Allahabad	.....	12		
			7. Karolla Bagh Sanatorium	A private institution run by donations. Consumptives' Home Society, Bombay.	92		
			1. King Edward Sanatorium, Dharampore.		58		
Punjab	Anti-Tuberculosis sub-Committee, Punjab Provincial Branch.	4	2. Lady Irwin Sanatorium, Samwar.	Punjab Union Mission	74		
			3. Jubilee (Mohd. Hussein) Sanatorium, Samli.	Board under Chairmanship of Commissioner, Rawalpindi Division. S. G. Memorial Hospital Trust.	23		
			4. S. G. Tuberculosis Hospital, Model Town, Lahore.	K. B. Sanatorium Society.	35		
			5. Krishan Bhagwan Sanatorium, Multan.	Dharamsala Municipality	7		
			6. McGuire T. B. Sanatorium, Dharamsala.	Mission	18		
			7. Memorial Mission Hospital, Ludhiana.	.....	74		
			8. B. B. Amar Nath T. B. Institute and T. B. Wards in Mayo Hospital, Lahore.	.....	82		
			9. K. G. Jubilee Memorial T. B. Hospital, Rawalpindi.	.....			

Province.	Name of Anti-Tuberculosis Association in the Province.	No. of T. B. Dispensaries and Clinics.	Tuberculosis Sanatoria.		No. of Beds.	No. of beds reserved in General Hospital for T. B. patients.	Special T. B. Officers if any.
			Name of Sanatorium.	Designation of Managing Body.			
Central Provinces & Berar.	Anti-Tuberculosis Committee, Indian Red Cross Society, Nagpur.	4	Pendra Road Sanatorium	Union Board of Missions.	100	29	T. B. Officers if any.
Bihar	Anti-Tuberculosis sub-Committee, Bihar Provincial Branch.	16 Clinics are to be opened.	Itki Sanatorium, Ranchi	Bihar Government	128	About 38	One Provincial Specialist in-charge Itki Sanatorium and one special T. B. Officer of the rank of A. D. P. H. for touring.
Assam	Anti-Tuberculosis sub-Committee, Assam Provincial Branch.	1	There is a proposal to open a Sanatorium with the money received from the Silver Jubilee Fund.				
North-West Frontier Province.		34	1. 10 beds are reserved for N.-W. F. P. in Samli Sanatorium.	.....	10	44	
			2. Dadar Sanatorium under construction.	.....	64 beds when opened.		
Sind	Indian Red Cross Society, Sind Provincial Branch.	3	Papatti Awatung Sanatorium, Jherrach, Karachi District.	Run by charitable funds	20	1	
Orissa	.....	...	2 beds are reserved in Itki Sanatorium, Ranchi.	Bihar Government	2	...	
Delhi	Anti-Tuberculosis sub-Committee, Delhi Provincial Branch.	2	Silver Jubilee Tuberculosis Hospital, Kingsway, Delhi.	Delhi Municipality	93		
Laluchistan	There are no anti-tuberculosis activities in Baluchistan for the present.						
Ajmer-Merwara (Rajputana),	Anti-Tuberculosis Committee, Ajmer-Merwara, Ajmer.	1	1 Mary Wilson Sanatorium, Tilwaja.	American Methodist Mission.	80 for women.	30	
			2 Madar Sanatorium	Ditto	40 for men.		
Total	.....	77	39		2,165	603	

## CHAPTER. V.

### Medical Education and Registration.

#### 1. MEDICAL COLLEGES.

Medical Colleges built at Government expense were established at Calcutta and Madras in 1835 while half the initial cost of the Bombay College built ten years later was defrayed by the friends of Sir Robert Grant after whom the new institution was named. Although numerous schools sprang up to provide training for a subordinate class of medical officers (hospital assistants and sub-assistant surgeons), except for Lahore (1860), it was not until 1906 that the need for more teaching of a University standard was recognised. The example of Lucknow (1911) was followed by other centres and there are now 10 University medical colleges; including one exclusively for women, established in India. At first the Colleges, which were used almost entirely to train medical men for Government service, granted their own diplomas but Calcutta became affiliated to a University in 1857 and was followed soon after by Madras, Bombay and Lahore.

2. The connection of Indian Medical Colleges with the General Medical Council of the United Kingdom began in 1892 when that Council accepted Indian degrees as being of sufficient standard to be placed on the British Medical Register. After the War the General Medical Council, who were dissatisfied with the reports received concerning the teaching of midwifery, deputed Sir Norman Walker to inspect and report on the standard of medical education in India. Inspection of standards of recognised qualifications is one of the duties imposed upon the General Medical Council and Sir Norman Walker's visit was followed by an all round improvement in medical education. Some colleges were unable to attain to the required standard and when India was unable to accept their proposals for regular inspection the General Medical Council were compelled to withdraw recognition from Indian degrees. This state of affairs existed from 1924 to 1933 when the Indian Medical Council Act, 1933, passed by the Central Legislature came into force. By this Act responsibility for the maintenance of a uniform minimum standard of higher medical qualifications for the whole of British India was entrusted to the Medical Council of India who were given necessary powers to inspect courses of instruction and examinations and to recommend to the Governor-General in Council the medical qualifications which should be included in the Schedules to the Act. In accordance with the powers conferred upon it the Council has in 1934, 1935 and 1936 carried out detailed inspections of all the Indian Medical Colleges and their examinations and as a result the medical qualifications of all the Universities except those of the Andhra University have now been placed on the First Schedule of the Act. As a result of two careful and detailed inspections of the Vizagapatam Medical

College the Medical Council of India at their meeting held in August 1937 decided that

"Andhra University be informed that pending the provision of proper facilities for all teaching for the M. B. B. S. degree the Council is unable to recommend to the Governor-General in Council the inclusion on the First Schedule of the qualifications of the Andhra University."

3. The Medical Council of India has also framed a series of recommendations for professional education. These recommendations now govern the requirements and standards of University medical education in India and except in a few minor details are already being followed closely by the recognised Medical Colleges. These recommendations are reproduced below:—

### I. General.

No candidate should be allowed to begin the medical curriculum proper until:—

- (i) He has attained the age of 17 years, or will attain that age during the first term of the curriculum.
- (ii) He has passed an examination in Mathematics at least of the matriculation standard, and in General Education, including modern English, of the intermediate standard.
- (iii) He has passed, preferably as part of the Intermediate examination, including practical tests in each subject, an examination or examinations in the following subjects to the extent indicated:—
  - (a) Chemistry; the elementary principles of general and physical chemistry, and of the chemical combination of elements, including carbon;
  - (b) Physics; the elementary mechanics of solids and fluids, and the elements of heat, light, sound, electricity and magnetism;
  - (c) Biology; the fundamental facts of vegetable and animal structure, life-history and function, and an introduction to the study of embryology.

*N.B.*—These subjects should be treated, in general, with special reference to their applications in the subsequent work of the student.

### II. The Medical Curriculum.

With regard to the course of study and the examinations which persons desirous of qualifying for the medical profession shall go through in order that they may become possessed of the knowledge and skill requisite for the efficient practice of medicine, surgery and midwifery, the Council recommends as follows:—

1. That every student should undergo a period of certified study extending over not less than five academic years between the date of

commencement of his study of the subjects comprising the medical curriculum and the date of his final qualifying examination; provided that the last three years of the period must have been spent in the continuous study of the clinical group of subjects.

2. That the first two years should be occupied in the study of the professional scientific subjects with an introduction to clinical methods, and that no student should be certified as attending classes in the clinical group of subjects until he has satisfied the Examiners that he has a competent knowledge of the subjects of these two years. This examination need not include clinical methods.

3. That throughout the whole period of study the attention of the student should be directed by his teachers to the importance of the preventive aspects of medicine, and of measures for the assessment and maintenance of normal health.

In every course of professional study, and in the examinations, the following subjects should be included:—

### **III. Period of Study of the Professional Scientific subjects (first two years).**

1. Human Anatomy and Physiology. These courses should include:—
  - (a) Dissection of the entire body.
  - (b) Histology.
  - (c) Elements of human embryology.
  - (d) The principles of general physiology, including Bio-chemistry and Bio-physics, and, in the case of those Universities in which no provision has been made for teaching the subject in the pre-medical course, Organic Chemistry.
  - (e) Elements of genetics (N.B.—This subject may be taken with biology).
  - (f) Elementary normal psychology.
  - (g) The normal reactions of the body to injury and infection, as an introduction to general pathology and bacteriology.
  - (h) Elements of the methods of clinical examination, including the use of the common instruments and the examination of body fluids, with demonstrations on both normal and abnormal living subjects.
  - (i) An introduction to pharmacology.

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*Note.*—Instruction under the last three headings above should be given during the second year, by arrangement between the teachers of anatomy, physiology, and pharmacology, and of the clinical subjects concerned.

The amount of time allotted to these subjects should not be more than one-third of the total time available in that year.

The demonstration of structure and function in the teaching of anatomy and physiology should be done as far as possible on the living human subject, and should include the information to be obtained from radiology.



### **IV. Period of Clinical Studies (third, fourth and fifth years).**

2. Pathology and Bacteriology.—Courses of instruction throughout the period of clinical studies, to include—

- (a) General and special pathology and morbid anatomy.
- (b) Clinical and chemical pathology.
- (c) Elementary general bacteriology and parasitology.
- (d) Clinical bacteriology and parasitology.
- (e) Immunology and immunization.

Each student should be required to have received practical instruction in the conduct of autopsies, and to have acted as a post-mortem clerk in at least ten cases.

3. Pharmacology and Materia Medica, including elementary pharmacological chemistry and practical pharmacy. A course, including practical work, should be taken concurrently with courses of clinical instruction.

4. Forensic Medicine, Hygiene and Public Health.—Courses of instruction in these subjects should be given not earlier than the fourth year. These should include instruction in the duties which devolve upon practitioners in their relation to the State, and on the generally recognised rules of medical ethics.

5. Medicine, including:—

- (a) A course of systematic instruction in the principles and practice of Medicine.
- (b) A medical clinical clerkship for a period of nine months, of which six months must be spent in the hospital wards and three months in the outpatient department.

*Note.*—Each student during his period of clinical clerkship in the wards should have continuously in his sole charge as clerk not less than five beds.

- (c) A clinical clerkship for not less than one month in a children's ward or hospital, or in a children's outpatient department.
- (d) During the period of medical ward clerking a continuous period of one month as an intern clerk, during which the student is in residence in hospital or close by.
- (e) Lectures or demonstrations in Clinical medicine and attendance on general inpatient and outpatient practice during at least two years, which may run concurrently with the surgical practice under 6(d).
- (f) Instruction in Therapeutics and prescribing, including (i) pharmacological therapeutics, (ii) the methods of treatment by vaccines and sera, (iii) physiotherapy, (iv) dietetics, and (v) the principles of nursing.
- (g) Instruction in Applied Anatomy and Physiology throughout the period of clinical studies, to be arranged between the teachers of anatomy and physiology and of the clinical subjects.

- (h) Instruction throughout the periods of medical clerkship in Clinical pathology, to be arranged by the teacher of pathology and of the clinical subjects.
- (i) Instruction in the following subjects:—
  - (1) Diseases of infancy and childhood.
  - (2) Acute infectious diseases.
  - (3) Tuberculosis.
  - (4) Psychopathology and mental diseases.
  - (5) Diseases of the skin, including Leprosy.
  - (6) Theory and practice of vaccination.
  - (7) Radiology and electro-therapeutics in their application to medicine.

Throughout the whole period of study the attention of the student should be directed by the teachers of this subject to the importance of its preventive aspects.

#### 6. Surgery, including:—

- (a) A course of systematic instruction in the principles and practice of Surgery.
- (b) A Surgical dressership for a period of nine months, of which six months must be spent in the hospital wards and three months in the outpatient department.

*Note.*—Each student during his period of Surgical dressership in the wards should have continuously in his sole charge as dresser not less than five beds.

- (c) During the period of surgical ward dressing a continuous period of one month as an intern clerk, during which the student is in residence in hospital or close by.
- (d) Lectures or demonstrations in clinical surgery and attendance on general inpatient and outpatient practice during at least two years, which may run concurrently with the medical practice under 5(e).
- (e) Practical instruction in surgical methods including physiotherapy.
- (f) Practical instruction in minor surgery on the living.
- (g) Instruction in the administration of anaesthetics.
- (h) A course of instruction in operative surgery.
- (i) Instruction in applied anatomy and physiology throughout the period of clinical studies to be arranged between the teachers of anatomy and physiology and of the clinical subjects.
- (j) Instruction, throughout the periods of surgical dressership, in Clinical pathology, to be arranged by the teachers of pathology and of the clinical subjects.

(k) Instruction in the following subjects:—

- (1) Ophthalmology, including refraction and the use of the ophthalmoscope; with hospital attendance for a period of three months.
- (2) Diseases of the ear, nose and throat, including the use of the otoscope, laryngoscope and rhinoscope.
- (3) Radiology and electro-therapeutics in their application to surgery.
- (4) Venereal diseases.
- (5) Orthopaedics.
- (6) Dental diseases.
- (7) Surgical diseases of infancy and childhood.

Throughout the whole period of study the attention of the student should be directed by the teachers of this subject to the importance of its preventive aspects.

7. Midwifery, Diseases of women, and infant Hygiene including:—

- (a) Courses of systematic instruction in the principles and practice of Midwifery, Gynaecology, and Infant Hygiene, including applied anatomy and physiology of pregnancy and labour.
- (b) Lectures and demonstrations in clinical Midwifery, Gynaecology and Infant hygiene and attendance on the practice of a maternity hospital or the maternity wards of a general hospital, including (a) ante-natal care and (b) the management of the puerperium, and on inpatient and outpatient gynaecological practice for a period of at least three months.

This period should be devoted exclusively to instruction in these subjects, and should be subsequent to the medical clinical clerkship [Section 5(b)] and the surgical dressership [Section 6(v)]. Not less than two-thirds of the hours of clinical instruction should be given to midwifery, including ante-natal care and infant hygiene.

- (c) Of this period of clinical instruction not less than one month should be spent as a resident pupil either in a maternity hospital or in a hostel attached to a maternity hospital or to the maternity wards of a general hospital.

The student should during this month attend at least twenty cases of labour under adequate supervision. Should the

number of cases attended during this month be less than twenty, the remainder must be attended as soon as possible thereafter.

A certificate showing the number of cases of labour attended by the student; in the maternity hospital and in the patients' homes respectively, should be signed by a responsible medical officer on the staff of the hospital and should state:—

- (i) That the student has personally attended each case during the course of labour, making the necessary abdominal and other examinations under the supervision of the certifying officer, who should describe his official position;
- (ii) That satisfactory written histories of the cases attended, including when possible ante-natal and post-natal observations, were presented by the student and initialled by the supervising officer.

4. **Admissions.**—While all students are required to pass the Intermediate examination of an Indian University or its equivalent before admission to a medical college the large number of applications for the comparatively limited number of vacancies has made it necessary for all the Colleges to appoint Selection Committees. Students are selected on their merit and generally in accordance with the marks obtained in the University Intermediate examination; only Lucknow holds a College competitive examination for selection of its students. At the Lady Hardinge Medical College students are admitted from any part of India; at other medical colleges seats are primarily reserved for local candidates, although by arrangement with the States concerned the Medical College, Madras, reserves a few seats for students of Southern India Indian States, seven seats are reserved for Sind in the Grant Medical College, and five seats for the Central Provinces in the Seth Gordhandas Sunderdas Medical College, Bombay. This provincial *preference* means that students of many areas cannot obtain a higher medical education in India. Residents of Indian States, Central Provinces, North-West Frontier Province, Delhi and the Centrally Administered Areas are especially affected by this rigid provincial selection and the time has come when the establishment of a new medical college in Delhi or at some other central place must be seriously considered. The desirability of having such a college becomes all the more obvious when it is remembered that the students other than those domiciled in the province in which a college is situated have to pay prohibitive annual charges which vary from Rs. 400 per annum at the Madras Medical College to Rs. 2,000 per annum at the King George's Medical College, Lucknow. The King Edward Medical College, Lahore, charges Rs. 850, the Grant Medical College, Bombay, Rs. 1,200 and the Lady Hardinge Medical College, New Delhi, Rs. 1,500 per annum from "foreign" students.

5. Several colleges are required to select their students on a communal basis as shown in the following table.

Communities for which reservations are made.	Medical College, Madras.	Medical College, Vizagapatnam.	Grant Medical College, Bombay.	Seth Gordhandas Sunderdas Medical College, Bombay.	Medical College, Calcutta.	Carmichael Medical College, Belgachia.	King George's Medical College, Lucknow.	King Edward Medical College, Lahore.	Prince of Wales Medical College, Patna.	Lady Hardinge Medical College, New Delhi.
	%	%	%					%		
Non-Brahmin Hindus	41	41	..	..	..	..	..	..	..	..
Brahmins	17	17	..	..	..	..	..	..	..	..
Mohammedans	17	17	10	..	21 seats	..	..	40	8 seats	..
Christians, Anglo-Indians and non-Asiatics	17	17	..	..	..	..	..	..	..	..
Other communities including scheduled classes	8	8	..	..	..	..	..	..	..	..
Backward classes Hindus	..	..	10	..	..	..	..	..	..	..
Sikhs	..	..	..	..	..	..	..	20	..	..
Beharee Hindus, Anglo-Indians and Christians	..	..	..	..	..	..	..	..	20 seats	..
Oriyas (from Orissa)	..	..	..	..	..	..	..	..	4 seats	..
Domiciled Bengalees	..	..	..	..	..	..	..	..	4 seats	..
Sons of Government servants	..	..	..	..	..	..	..	..	4 seats	..

6. **Women students.**—A separate note has been printed regarding medical education of women. In addition to the Lady Hardinge Medical College, 322 women students are under instruction at other colleges in most of which a few seats are reserved for women students.

7. **Post-graduate classes in India.**—There are three important centres in India for post-graduate training: the School of Tropical Medicine, Calcutta; the All-India Institute of Hygiene and Public Health, Calcutta, and the field station of the Malaria Institute of India, Karnal.

The School of Tropical Medicine, Calcutta, is the only centre in India for post-graduate teaching in tropical diseases. Three classes are held annually, one from October to April, terminating in the examination for the Diploma of Tropical Medicine (D. T. M.), one from July to October terminating in the examination for the Licentiate of Tropical Medicine (L. T. M.), and one in conjunction with the All-India Institute of Hygiene

and Public Health lasting for nine months and terminating in the examination for the Diploma of Public Health of the Calcutta University.

At the All-India Institute of Hygiene and Public Health training is provided for courses leading to D. P. H. and D. Sc. (Public Health) of the University of Calcutta, and D. P. H. & Hy. and D. M. C. W. of the Faculty of Tropical Medicine and Hygiene of Bengal. Besides these courses, a three months post-graduate course of instruction is offered in the various subjects to those who wish to specialise in them.

The course at the field station of the Malaria Institute, Karnal, is designed for the training of medical officers in the basic principles and advanced aspects of malariology. It lasts for six weeks and consists of 40 lectures and about 120 hours of practical instruction in the laboratory and in the field. The subjects taught include the identification and dissection of mosquitoes and their larvae, the bionomics of mosquitoes, the parasitology, pathology and epidemiology of malaria, modern methods of investigating and measuring the extent of malarial incidence and the principles and practice of control measures. A practical, written and *viva voce* examination is held at the end of the course and certificates are issued to those who pass the examination.

8. **Non-medical classes.**—At several colleges teaching of compounders, chemists, druggists and sanitary inspectors is undertaken as follows:—

#### MEDICAL COLLEGE, MADRAS.

- (i) Licentiates in Public Health.
- (ii) Sanitary Inspectors.
- (iii) Chemists and Druggists.

#### MEDICAL COLLEGE, VIZAGAPATAM.

Chemists and Druggists.

#### KING EDWARD MEDICAL COLLEGE, LAHORE.

Dental Surgery.

#### LADY HARDINGE MEDICAL COLLEGE, NEW DELHI.

Dispensers.

9. **Research.**—A number of researches at Medical Colleges have been financed by the Indian Research Fund Association. During 1937-38 the following enquiries were financed by the Association.

1. Investigation on basal metabolism in children and adults in the Bombay Presidency at the Seth Gordhandas Sunderdas Medical College, Bombay.
2. Cancer enquiry at the King Edward Medical College, Lahore.
3. Enquiry into the aetiology of splenomegaly in Bengal at the Medical College, Calcutta.
4. Bacteriological investigation by blood culture in certain eye diseases at the Seth Gordhandas Sunderdas Medical College, Bombay.

5. Enquiry in mycetoma of fungus foot diseases at the Seth Gordhandas Sunderdas Medical College, Bombay.
6. Researches on study of bone-marrow, etc., at the Carmichael Medical College, Belgachia.
7. Enquiry into thromboangitis obliterans at the Seth Gordhandas Sunderdas Medical College, Bombay.
8. Pharmacological investigation of oroxylin at the Seth Gordhandas Sunderdas Medical College, Bombay.
9. Indigenous Drugs Enquiry at the King Edward Medical College, Lahore.

Several research papers were published by the members of the staff of the various colleges during 1936-37.

## 10. Summary of history and activities of Medical Colleges in India.

### MEDICAL COLLEGE, MADRAS.

The Madras Medical College was founded as a Medical School by the Right Hon'ble Sir Frederick Adam, K.C.B., by an Order of Government, dated the 13th February 1835, and it opened its first session with 10 medical apprentices and 11 Indian pupils on the 1st July 1835, in the rooms adjoining the quarters of the Surgeon to the General Hospital. The School removed in 1836 to a new building erected for the purpose. The first curriculum of studies embraced Anatomy, Materia Medica, Medicine and Surgery, the duration of the course being two years. As the School continued its work, additional professorships were sanctioned for Anatomy, Physiology, Midwifery, Ophthalmology and Chemistry and the duration of the course was extended to 3 years. Private students were first admitted in 1838. The School at this period consisted of three departments—(1) private and stipendiary students with a five-year course, (2) Apprentices qualifying for the Apothecary grade, four-year course, and (3) Medical pupils qualifying for Second Grade Dresser of the Medical Department, with a three-year course. The designation of "College" was given in 1850 and the Institution became "The Madras Medical College", under the control of the Medical Board and of the Head of the Medical Department. It was placed in 1855 under the supervision of the Director of Public Instruction.

The College remained an independent body till 1863 when it was affiliated to the Madras University. It was the first college to admit women students in 1875, a year which also saw the institution of the L. M. & S. degree. A class for the training of candidates as Sanitary Inspectors was opened in 1895. The Chemists and Druggists Department was opened later and in the session of 1900-01 there were five Departments in all—the College Department, Apothecary Department, Chemists and Druggists Department, Hospital Assistants Department and the Sanitary Inspectors Class. The Hospital Assistants Department was finally transferred in 1908 to the Medical School at Royapuram. The construction of the

**Hygiene and Physiology Laboratories** at an estimated cost of Rs. 1,70,000 was sanctioned in 1907 and the classes for the First Class Health Officers and candidates preparing for the B. S. Sc. degree of the University of Madras were opened in 1914. The L. M. & S. degree was abolished in 1925. The grade of Lady Apothecary was also abolished and the period of study for the M.B., B.S. degree was extended to 5½ years with the introduction of the 6 months pre-registration course. The College at present affords instruction for the M.B., B.S. degree of the University of Madras, for the B. S.Sc. degree, and Licentiate in Public Health, for the Sanitary Inspectors, Chemists and Druggists, and for post-graduates in various subjects.

Candidates for admission to the College are selected annually by a Committee appointed for the purpose, preference being given to those domiciled in the Madras Presidency. Candidates seeking admission must have completed 17 years of age on or before the date of registration as a medical student. The number of seats ordinarily reserved for non-Madras candidates is 11, 6 being earmarked for Travancore State, 2 for Cochin State, 1 for Pudukottah Durbar and 2 for areas other than Travancore and Cochin, preference being given to applicants from Banganapalli and Sandur. The States of Travancore and Cochin are authorised to select their own candidates provided they possess the minimum educational qualifications. Additional seats, if available, are allotted to candidates from Travancore and Cochin.

Of the seats allotted to Madras candidates, 45 per cent. go to the candidates from Telugu Districts, the same percentage to those from Tamil Districts and the remaining 10 per cent to candidates from West Coast; 41 per cent. being allotted to non-Brahmin Hindus, 17 per cent. to Brahmins and Mohammedans each, an equal percentage to Christians, Anglo-Indians and non-Asiatics, and the remaining 8 per cent. to other communities including scheduled classes. Candidates from the same community in the same linguistic area are selected according to their educational qualifications. Generally 20 to 25 women students are admitted every year; the question of reservation of seats for them is under consideration.

The number of students working at a time in a practical class does not exceed 60.

Twenty-two papers and 23 pamphlets or books on various subjects of medical interest were published by the members of the staff during the year 1936-37.

#### **MEDICAL COLLEGE, VIZAGAPATAM (MADRAS).**

It is a Government institution which was founded by the Government of Madras in 1923 in response to the wishes of the people of the Telugu districts and is affiliated to the University of Madras for the M.B., B.S. degree. The College opened on the 1st July 1923 with Departments of Physics, Chemistry, Biology, Anatomy and Physiology, in the building originally constructed for a Medical School by Maharani Lady Goday Chittijanakiammah Gajapathi Rao Garu. The building proved insufficient



and extensions became imperative; a block was constructed in close proximity to the King George Hospital for teaching Pathology and Bacteriology and was occupied in July 1925; the Departments of Physiology, Biology and Anatomy were housed in a building erected in 1927 near the old College buildings and those of Pharmacology, Hygiene and Biochemistry in another building completed in 1932.

The College has attached to it a hospital with 348 beds where facilities exist for imparting clinical education to the students of the College. Additions were made in 1928 to the Hospital buildings to provide accommodation for 40 beds for Maternity and Gynaecological cases, and another block was completed in 1932 to accommodate 80 beds for the Eye and Ear, Nose and Throat Departments. The Mental Hospital at Waltham, situated 3 miles away from the King George Hospital, Vizagapatam, is also attached to the College, where clinical instruction in mental diseases is given.

A comprehensive scheme for enlarging and modernizing the College and its Hospital is at present under the consideration of Government. If sanctioned, it will provide for new Operation Theatres, outpatients departments and wards for venereal, infectious and tubercular cases, besides a new Anatomy and Chemistry Department and several other improvements.

The rules of admission are the same as those of the Medical College, Madras; the maximum number of students that can be admitted in any one year is 50. No seats are reserved specifically for women students or students from other Provinces.

The number of students working at a time in a practical class does not exceed 100 in Anatomy dissections and 48 in Biochemistry and Pharmacology; 42 in Physiology (Histology) and 38 in Pathology and Bacteriology; 36 in Experimental Physiology and 30 in Organic Chemistry; and 28 in Inorganic Chemistry, 26 in Biology and 25 in Physics.

A special class for Chemists and Druggists was started in July 1937. The number of admissions to this class is limited to 6 students. Those who have qualified for a Secondary School-leaving certificate taking Physics or Chemistry as 'C' group subjects are eligible for admission. The course extends over two years. At the end of the course students should appear for the examination at Madras, and a diploma in Pharmacy will be awarded by the Government of Madras to the successful candidates.

37 papers on various subjects of medical interest were published by members of the staff during 1936-37.

#### GRANT MEDICAL COLLEGE, BOMBAY.

It is a Government institution established in the year 1845 to commemorate the memory of the late Sir Robert Grant, Governor of Bombay, with the object of imparting medical education to the natives of Western India. It began its first session with only 12 students. Half of the initial cost of building the College was defrayed by the friends of Sir Robert

Grant and the other half by Government, who is also responsible for providing funds for the maintenance and upkeep of the institution. The College was affiliated to the University of Bombay in 1860. It has attached to it a laboratory for scientific medical research—the gift of Mr. Framji Dinshaw Petit—which was opened in 1891. The Anatomy block with its dissecting room was built in 1903 and the Pathological Laboratory and Lecture room and the Anatomical and Physiological Lecture Theatre were completed in 1910. In 1913, the Physiological School and Laboratories were also added to the College buildings. The College library has about 8,000 books and 5,000 journals. Clinical instruction to the students of the College is imparted in (i) Sir Jamsetji Jeejeebhoy Hospital, with accommodation for 365 beds, (ii) the Sir Cawasji Jehangir Ophthalmic Hospital built in 1866 with accommodation for 73 patients, (iii) the Bai Motlibai Hospital built in 1892, (iv) the Sir Dinshaw Manekji Petit Hospital for Women opened in 1892, and (v) the Sir B. J. Hospital for Children, which was opened in 1928 and has accommodation for 100 beds.

The College provides medical education upto the degree standard for the graduates and undergraduates of the Bombay and other recognised Universities and for European and Anglo-Indian Military medical students under training for recruitment to the Military Assistant Surgeons Branch of the Indian Medical Department. Facilities also exist for post-graduate study in Medicine, Surgery, Midwifery, Pathology, Bacteriology, Ophthalmology, Physiology and Hygiene.

120 students are admitted annually. Candidates seeking admission must have passed the Group 'B' Intermediate Science Examination of the Bombay University in Chemistry, Physics and Biology or an equivalent examination of some other University as recognised by the Bombay University. Selection is made on the basis of marks obtained by candidates at the Intermediate examination, preference being given to candidates belonging to the Bombay Presidency provided such candidates have received their preliminary education at a college affiliated to the University of Bombay. Of the total number of seats available, 10 per cent. each go to Mohammedans, backward class Hindus, and women students. Seven seats are reserved for candidates from Sind and 5 for Military medical students.

According to the University regulations there should be one demonstrator for every 20 students in practical classes, but the College does not observe any specific rules in this respect. For practical classes students are generally divided into batches of not more than 40.

24 papers were published during 1936-37 by members of the staff on various subjects of medical interest.

#### SETH GORDHANDAS SUNDERDAS MEDICAL COLLEGE, BOMBAY.

It is a non-Government institution and owes its origin to the endowment in 1916 of Rs. 14½ lakhs from the trustees of the late Seth Gordhandas Sunderdas, offered to the Bombay Municipal Corporation for the

foundation of a medical college in association with the King Edward VII Memorial Hospital which the Corporation had already undertaken to build, equip and maintain. The endowment was made under certain conditions the most important of which was that the professors and teachers to be employed should be all properly qualified independent Indian gentlemen not in Government service. The cost of constructing and equipping the College amounted to Rs. 18,96,132 and of the Hospital to Rs. 52,91,915. The College was opened in June 1925. The Hospital accommodates 370 beds at present and the Bombay Municipal Corporation have approved of its extension by 106 beds. Besides this, there are two more hospitals where clinical instruction is imparted to the students of the College: one is the Nowroji Wadia Maternity Hospital which was completed in 1927 and has 150 beds and an ante-natal department, and the other is the Bai Jerbai Wadia Hospital for Children which was completed in 1929 and accommodates 126 beds and a solarium. Both these hospitals owe their origin to the princely donation of the Wadia brothers amounting to Rs. 40,42,865.

The College possesses an Anatomy museum and a Pathological museum called the "Seth Jamnadas Lallubhai Pathological Museum". The Hostel which has accommodation for 144 students was constructed at a total cost of Rs. 3,29,172. The College, together with the Hospital and other associated buildings occupies an area of about 17 acres.

The College was affiliated in 1926 to the University of Bombay for the M. B. B. S. degree. It is also affiliated to the University for undergraduate and post-graduate courses of study in Animal Physiology, Comparative Anatomy, Embryology, Bacteriology and Microbiology. It is affiliated to the College of Physicians and Surgeons, Bombay, for all its examinations. The College and the Hospital have been recognised for post-graduate degrees and diplomas granted by the University of Bombay, as well as for various examinations held by the Conjoint Board (London), the Royal College of Surgeons (England) and for D. O. examination of the University of Oxford.

Eighty students are admitted every year. Candidates desirous of admission must have passed the Intermediate examination in Science of the Bombay University, in the group of Physics, Chemistry and Biology, or an equivalent examination of any other recognised University with Organic Chemistry as one of the subjects. No seats are reserved for women students or for students from backward or special communities. Sixty seats are reserved for students from the City of Bombay and the Bombay Suburban District and five for nominees of the C. P. Government.

The number of students working at a time in a practical class is approximately 70 in Pathology and Bacteriology, 50 in Experimental Pharmacology, 27 in Physiology and 25 in Practical Pharmacy. The proportion of teachers and/or demonstrators to students is 1 to 20 in the practical classes of Anatomy, Physiology, Pharmacology, Pathology and Bacteriology and approximately the same in Medical and Surgical classes, and 1 to 12 in Gynaecological classes and 1 to 9 in Midwifery.

The staff of the College published 13 papers on various subjects of medical interest during 1936-37.

### MEDICAL COLLEGE, CALCUTTA (BENGAL).

It is a Government institution and is one of the oldest Medical Colleges in India. It was the first to teach the preliminary Sciences and give clinical training under the same roof. On the recommendation of a Committee on Medical Education appointed by Lord William Bentinck, His Lordship in Council issued an Order dated the 28th January 1835 abolishing the Native Medical Institute together with the medical classes in the Sanskrit College and at the Madarassa in Calcutta and decreed that a new College should be formed for the instruction of a certain number of Indian youths in the various branches of medical science. A Medical College was accordingly started in 1835 in the buildings formerly occupied by the Petty Court Jail. Although the College had no hospital in the beginning, arrangements were made for imparting clinical instruction to the students at the various city dispensaries and hospitals. In 1838, however, a ward with 20 beds and an outpatients department was opened. In this year a Hindustani class was also opened for the education of subordinate doctors. An outpatients dispensary was established in 1839. The first examination was held in October 1838 after 3½ years study, and Government approved of the results.

In 1840 a female lying-in hospital with 100 beds was constructed within the College premises with the aid of funds raised by public subscription. By 1844 the hospital had 3 wards with accommodation for 112 beds. In 1845 the system of instruction was overhauled and the period of study extended to 5 years. As a result of these changes the College received the recognition of the Royal College of Surgeons in England and of the Apothecaries Society of London, and four students were sent to England for higher study. In 1851 a section for the training of doctors through the medium of Bengali was added to the Hindustani class. In 1852-53 a large hospital with accommodation for 350 beds was opened, 50 being reserved for maternity and allied cases. The College had at this time 10 Chairs, *viz.*, those for Anatomy, Physiology, Zoology, Chemistry, Botany, Materia Medica, Medical Jurisprudence, Midwifery, Surgery, Medicine and Ophthalmic Surgery and possessed an ample museum.

The College was affiliated to the University of Calcutta in 1857. In 1860 a Code of Rules was drawn up for all classes of the Medical College dividing the students into four classes, *viz.*, (i) the primary and Ceylon classes taking the full University Curriculum of 5 years, (ii) the Apprentice class, (iii) the Hindusthani class and (iv) the Bengalee class (the latter pursuing a 3 years' course). The native apothecary class and the vernacular licentiate class with a total number of 873 students were transferred to a new school in the Campbell Hospital. Training in dentistry was started in 1861 and in Hygiene in 1864-65. A woman student was admitted for the first time in 1884. The minimum qualification for

admission into the Medical College was raised to the first examination in Arts in 1874. College and Hospital extensions were also made. In 1891 the present Old Eye Hospital was opened with 57 beds. In 1876 the construction of nurses' quarters and a new ward for alcoholic cases was sanctioned. Chunnilal Seal's outdoor dispensary was completed in July 1880. The Eden and Ezra Hospitals were opened in 1881 and 1887 respectively. The Isolation Block of the Eden Hospital was completed in 1894. In 1899 the actual number of beds in the Medical College group of Hospitals was 449.

In 1906 the L. M. S. qualification of the University was abolished and the duration of the course was extended to 6 years. In 1904 the control of the medical education of the Province was transferred from the Director of Public Instruction to the Inspector General of Civil Hospitals. In 1916 the preliminary qualification for admission was raised to the Intermediate in Arts or Science.

Besides a large Administrative block containing a library, a theatre, an examination hall, the office and the students' common room, the College has at present 3 blocks of buildings housing the Chemical Examiner's Department and the Departments of Chemistry, Botany, Zoology, Physics, Physiology and Pathology with its museum and of Anatomy with its museum. There are 744 beds, at present, in the various hospitals attached to the College, where clinical education is imparted to the students.

Two classes of students are admitted to the College, (i) Military medical students, of whom 10 are selected for training by the Director General, Indian Medical Service (ii) the Civil students class whose admission is governed as follows:—

The minimum qualification for admission is a 1st class pass certificate of the I. Sc. examination, special consideration being given to proficiency in English, though Mohammedans who have passed that examination in the 2nd division may also be admitted. Women students are also admitted provided there is room in the Swarnamoyee Hostel which is the only hostel for women students. Selection is made by a Selection Committee appointed for the purpose. The selected students are required to undergo a medical examination as well. The maximum number of students that can be admitted in any one year is 105. One seat is reserved for a nominee of the Nepal State, another for a nominee of the Inspector General of Civil Hospitals, Central Provinces and Berar, 3 for nominees of the Dacca University and the same number for those of the Dacca Intermediate Board of Secondary Education. The Surgeon General, Bengal, nominates 5 candidates and the Inspector General of Civil Hospitals, Assam, six. Of the remaining seats, 5 go to women, 21 to Mohammedans and the rest, viz., 60 to other candidates.

The number of students working at a time in a practical class does not exceed 60 in Chemistry, Physics, Pathology and Biology (Botany and Zoology), 54 in Physiology, 40 in Pharmacology and 33 in Anatomy.

Besides other research work carried out and in progress, 14 papers on various subjects of medical interest were published by members of the staff during 1936-37 and 10 papers were read at the 5th All-India Ophthalmological Congress held at Lahore in December 1936. Dr. M. Chakravarti was awarded the Dr. Chandra's Research Scholarship for his thesis on "The Pharmacology and Therapeutics of *Ocimum bacilicum*".

#### CARMICHAEL MEDICAL COLLEGE, BELGACHIA (BENGAL).

The Carmichael Medical College was the first non-official Medical College to be recognised in India and came into existence in 1916. The institution had its origin in the year 1886 and was known as the 'Calcutta Medical School and College of Physicians and Surgeons of Bengal'. The School continued to be housed in a rented building for seventeen years and the bulk of the present site was bought in 1896 and the School removed to Belgachia in 1903. The curriculum was modified in 1887 and framed according to that of Government medical schools; the name was also changed to "Calcutta Medical School". From 1888 the students attended the Mayo Hospital for clinical instruction. The Albert Victor Hospital with 40 beds increased to 100 in 1909 was opened in 1902. The College of Physicians and Surgeons of Bengal, another private institution started in 1895, amalgamated with it in 1903 when the combined institution was named the 'Calcutta Medical School and College of Physicians and Surgeons of Bengal'.

With a view to affiliating the College to the University of Calcutta, the Government of India offered to give (i) a capital grant of Rs. 5 lakhs, provided the Committee of the institution raised 2 lakhs from the public, and (ii) a recurring grant of Rs. 50,000, provided Rs. 30,000 was paid annually by the Calcutta Corporation and Rs. 10,000 by the University. These conditions were ultimately fulfilled and the first affiliation to the University of Calcutta obtained in April 1916. The College was then opened as the "Belgachia Medical College" by Lord Carmichael, the then Governor of Bengal. In July, 1917, the College, was affiliated to the Calcutta University up to the standard of the First M. B. Examination, and in 1919 up to the Final M. B. Examination. The first batch of students appeared for the final M. B. examination in 1922. The present name of the College was given to it in 1919.

The College curriculum follows the M. B. Examination rules laid down in the Regulations of the Calcutta University and the management of the College is in the hands of a Council consisting of 14 members of whom three are nominated by the Government of Bengal.

The number of students to be admitted is determined annually by the Council of the College who appoint a Selection Committee for interviewing the candidates. There is no reservation for any community. Any candidate irrespective of caste or creed coming from any University and possessing requisite qualifications for admission under the rules of the Calcutta University is admitted provided he is found suitable by the Selection Committee at the interview. The Committee selects candidates

according to their educational qualifications, health and means of maintenance; mode of expression in English being one of the considerations. They also examine candidates' certificates of conduct. Seats are reserved for nominees of other provinces provided the provincial Government concerned agree to pay a capitation charge of Rs. 1,500 per annum for each student.

The University regulation of one demonstrator for every 20 students is generally observed. The number of students working at a time in a practical class does not exceed 250 in Anatomy, and 56 in Physics, Botany, Zoology, Experimental Physiology and Chemistry; 54 in Histology and 53 in Chemical Physiology; 48 in Pathology, 30 in Pharmacology and 20 in Medicine, Surgery, Midwifery and Ophthalmic Surgery.

Facilities for training nurses exist at this Institute.

24 papers on various subjects of medical interest were published during 1936-37 by members of the staff, in addition to the 18 read at various conferences and meetings. A revised edition of his *Materia Medica and Therapeutics* was published by Dr. B. N. Ghosh, F.R.F.P. & S. (Glasg.) L.M. (Dub.), F.S.M.F. (Bengal).

#### THE KING GEORGE'S MEDICAL COLLEGE, LUCKNOW (UNITED PROVINCES).

It is a non-Government institution founded, on the initiative of late Raja Sir Tasadduq Rasul Khan, K.C.S.I., of Jehangirabad, to commemorate the visit to India in 1905 of the late King Emperor, George V (then Prince of Wales). The foundation stone was laid by His Royal Highness the Prince of Wales in 1906 and on his second visit to India for the Coronation Durbar as King Emperor, His Majesty was pleased to give his consent to designate the College as "The King George's Medical College, Lucknow". The College began its first session in October 1911 in the building constructed for the purpose, comprising a fine administrative block, an Anatomical block, a combined Pathological and Physiological block and a Medico-legal Department. The construction of the King George's Hospital, which is attached to the College, was completed in 1913. This Hospital has an isolation block and separate cottage wards in addition to the main Hospital Block. A feature of the College is its excellent and well arranged Pathology Museum.

The total cost of the construction of the College and its associated hospitals came to about 30 lakhs of rupees which was met by public donations and a grant of 10 lakhs of rupees by the Government of India.

The first batch of students qualified in 1916. The College remained affiliated to the University of Allahabad till 1921 when it was attached to the Lucknow University for purposes of examinations and control.

A Provincial Hygiene Institute, complete with lecture theatre, museum laboratories and facilities for research, was constructed in 1928 at a cost of Rs. 3,36,000, and the University decided to give a Diploma in Public Health. The Institute can train 20 D. P. H. students, in addition to

those trained for the State Board Examination, 75 candidates for Sanitary Inspectors' certificate and a class of Lady Health Visitors.

48 students are admitted to the College each year. Candidates desirous of admission to the College must have passed the Intermediate Examination in Science with Chemistry, Physics and Biology of the Board of High School and Intermediate Education, United Provinces, or Rajputana (including Ajmer-Merwara), Central India and Gwalior, or the Intermediate Examination of an Indian University incorporated by any law for the time being in force. Selection is made by means of a competitive examination called the Pre-medical Test. Candidates are also examined physically. Two seats are reserved for women students and 3 for students from Indian States and other provinces which have no medical colleges of their own, provided that such a student obtains one of the first 48 places at the Pre-medical test and the Provincial Government or the Indian State concerned agrees (i) to pay an annual capitation charge of Rs. 2,000 per student, the student being required to pay the ordinary fees like other students and (ii) to recruit its medical service from the graduates of the Lucknow University.

The number of students working at a time in a practical class does not exceed 100 in Anatomy, 80 in Physiology, 24 in Pharmacology and 50 in Pathology.

No special non-medical classes are held in this College. Some lectures are given by the staff of the College to the L. P. H. classes, and the classes of Sanitary Inspectors and Nurses.

Sixty-two research and other papers were published by members of the staff during the year 1936-37.

#### THE KING EDWARD MEDICAL COLLEGE, LAHORE (PUNJAB).

It is a Government institution. In 1837, Sir John Lawrence thought of establishing a medical college in Lahore, but financial difficulties stood in the way and it was not until 1860 that the College was started in the old Artillery Hospital in Anarkali. The first hospital attached to the College was located in the stables of Raja Suchet Singh in the Tibbi Bazar. In 1883 the College moved to the site of the Mayo Hospital. The cost of constructing the College and the Hospital amounted to more than 40 lakhs of rupees which was met partly by public subscription and partly by Government grant. Its present name was given to it in 1910 to perpetuate the memory of King Edward VII. The Medical School formed part of the College till 1920 when the former was located at Amritsar in the interest of both the institutions.

Forty per cent. of the total number of vacancies are reserved for Mohammedans and 20 per cent. for Sikhs. 10 seats are reserved for women students and 5 each for candidates from the Punjab States and the North-West Frontier Province; 3 for candidates from the Delhi Province and 2 for those from Baluchistan. Military medical students are not trained in this College.



Generally the ratio of demonstrators and Assistant Professors to students is 1 : 25 in Anatomy, Physiology, Materia Medica and Pathology. The number of students working at a time in a practical class is 60 in Pathology and Materia Medica, 26 in Anatomy demonstrations and 200 in Anatomy dissections.

The following classes are also held in the College :—

- (i) Classes for the Degree of Bachelor of Dental Surgery (B: D. S.).
- (ii) Classes for D. L. O. Diploma of the Punjab University.
- (iii) Classes for Physiology upto M.Sc. standard of the Punjab University.
- (iv) Post-graduate training in the various medical subjects.

In addition to a paper on "Rheumatism and Heart Diseases in the Punjab" read before the Punjab Branch of the British Medical Association on 8th January 1937, four papers on various subjects of medical interest were published by members of the staff during 1936-37.

#### THE PRINCE OF WALES MEDICAL COLLEGE, PATNA (BIHAR).

It is a Government institution which had its origin in the Temple Medical School which was established in 1874. When the province of Bihar and Orissa was created in 1912, the need for a medical college was recognised; but, as it was not possible to start a medical college at that time, the provincial Government arranged with the Government of Bengal to reserve 18 seats in the Calcutta Medical College for the students of this province. In 1920 the Hon'ble Maharajadhiraj of Darbhanga gave a donation of five lakhs of rupees for the establishment of a medical college and a sum of Rs. 9,25,000 was raised by public subscription. The College started functioning in July 1925 with 31 students in the first year class; other classes were opened in July 1926, and the students of this province studying at the Calcutta Medical College were admitted to these classes. Its present name was given to it to commemorate the visit to India in 1921 of His Royal Highness the Prince of Wales.

Forty students are admitted to the 1st year class every year, but in special circumstances this limit is relaxed. Twenty seats are reserved for Beharee Hindus, Anglo-Indians and Christians, 8 for Mohammedans and 4 each for Oriyas (from Orissa), domiciled Bengalees, and sons of Government servants of whom three must be the sons of Bengalee Government servants. One seat may be allotted to a student from the Central Provinces every sixth year and 2 for nominees of the Nepal Government. The College is open to women students, but no seats are reserved specifically for them. In selecting the candidates, efforts are made as far as practicable to admit students from the various communities with due regard to the representation of different districts.

The number of students working at a time in a practical class does not exceed forty.

Seventeen papers on various subjects of medical interest were published by members of the staff during 1936-37 besides the "Medical Curriculum" published by Lt.-Col. G. H. Mahony, I.M.S.

### LADY HARDINGE MEDICAL COLLEGE FOR WOMEN, NEW DELHI.

It is a non-Government institution although supported almost entirely by the Government of India. It was founded to commemorate the visit to Delhi in 1911 of the Queen Empress. On the initiative of Lady Hardinge a sum of thirty lakhs of rupees was raised by public subscription to meet the cost of buildings and equipment, and after her death in 1914 it was decided to call it "The Lady Hardinge Medical College" in accordance with the wishes of H. I. M. Queen Mary.

The College was opened by Lord Hardinge on February 17, 1916. It is a residential medical college for women students only and is staffed entirely by women. It is affiliated to the Punjab University and has attached to it training schools for nurses and dispensers.

The College and its associated Hospital, together with separate hostels for 150 medical students and 80 nurses, and residences for the medical, teaching and nursing staffs, occupy an area of 50 acres in New Delhi, within easy reach of the old city. The grounds are enclosed and adequate provision is made for the seclusion of students and patients from outside observation. The College buildings consist of a central administrative block comprising the offices, the assembly hall, the library and the museums, together with two blocks for teaching, with the necessary class rooms and laboratories. There are playing grounds for Hockey, Basket Ball, Tennis and Badminton.

The selection of candidates for admission to the medical course rests with a Committee composed of the Principal and two other members of the Senior Staff, the considerations weighing with the Committee being the age and qualifications of a candidate, her suitability for the medical profession and the ability of her parents to meet the cost involved. The Punjab Government who pay an annual grant of Rs. 10,500 are entitled to 7 seats in the College and similarly the Bihar Government who pay an annual grant of Rs. 4,500 are entitled to 3 seats.

The number of students working at a time in a practical class does not exceed 80.

The Intermediate Science Classes have been discontinued since 1937 for additional accommodation and funds were required for the Medical Department.

**11. Statistics.**—Statistical and other information regarding Medical Colleges is given in the following tables.

*Medical*  
**Table**

College.	Date of Foundation.	Controlling authority.	University to which affiliated.	Degrees and Diplomas granted.	Annual admissions.	Total number of students during 1937-38.	
						M	W
1. The Medical College, Madras.	(1) 1835	(2) Government	(3) Madras	(4) M.B., B.S., L.M. & S., B.S.Sc., M.D., M.S.	(5) 120	(6) 597	(7) 89
2. The Medical College, Vizagapatam (Madras).	1923	Do.	Andhra	M.B., B.S., M.D., M.S.	50	217*	5
3. The Grant Medical College, Bombay.	1845	Do.	Bombay	M.B., B.S., M.D., M.S., B.Hy., B.Sc., D.O., L.C.P. & S., M.C.P. & S., M.Sc., Ph.D.	120	619	99
4. The Medical College, Calcutta (Bengal).	1835	Do.	Calcutta	M.B., M.D., M.S., M.O.	105	683	30
5. The King Edward Medical College, Lahore (Punjab).	1860	Do.	Punjab	M.D., M.S., M.B., B.S., D.L.O.	90	512	48
6. The Prince of Wales Medical College, Patna (Bihar).	1925	Do.	Patna	M.B., B.S., M.D., M.S.	40	279	3
7. Seth Gordhandas Sunderdas Medical College, Bombay.	1925	Bombay Municipality.	Bombay	M.B., B.S., B.Sc., M.D., M.S., D.O., M.Sc., Ph.D.	80	412	53
8. The Carmichael Medical College, Belgachia (Bengal).	1916	Council of the Medical Education Society of Bengal.	Calcutta	M.B., M.D., M.S., M.O.	110*	726	...
9. The King George's Medical College, Lucknow (United Provinces).	1911	Lucknow University.	Lucknow	M.B., B.S., M.D., M.S., D.P.H.	48	280	3
10. The Lady Hardinge Medical College, New Delhi.	1916	Governing Body of Officers and non-officials.	Punjab	M.B., B.S.	25	...	118

\* Excludes 55 pre-registration students (53 men and 2 women).

M—Denotes "Men".

## Colleges.

## A.

Number of students qualified during 1936-37.		Attached Hospitals.	Number of Hospital Beds available for teaching purposes.								
(M)	(W)		Surgical.	Medical.	Gynaecology.	Obstetrics.	Ophthalmic.	Ear, Nose and Throat.	Children.	Others.	Total.
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
90	11	1. General Hospital, Madras. 2. Hospital for women and children, Madras. 3. Ophthalmic Hospital, Madras. 4. Tuberculosis and Infectious Diseases Hospital, Madras.	280	235	(262)		250	10	85	45	1,179
32	...	1. King George Hospital.	90	68	20	20	68	12	8	62	348
83	16	1. Sir J. J. Hospital. 2. Sir C. J. Ophthalmic Hospital. 3. Bai Motilal Hospital for Women. 4. B. J. Hospital for Children. 5. Sir Dinshaw Maneckji Petit Hospital for Women.	247	264	20	40	73	8	85	..	737
71	2	1. Medical College Hospital. 2. The Ezra Hospital. 3. The Prince of Wales Hospital. 4. The Eden Hospital. 5. The Eye Hospital. 6. Sir J. Anderson Casualty Block. 7. The Cottages. 8. Chunnal Lal Seal's Dispensary. In addition, there are special Departments for Skin, Tuberculosis, Ear, Nose and Throat, Dental, Venereal Diseases X-ray and Radium.	244	198	59	54	130	12	20	...	726
60	2	1. Mayo Hospital. 2. Lady Willingdon Hospital. 3. Infectious Diseases Hospital. 4. Punjab Dental Hospital.	156	170	36	22	(148)	..	..	75	
39	...	1. The Prince of Wales Medical College Hospital.	138	90	35	35	74	12	16	...	400
52	8	1. King Edward VII Memorial Hospital. 2. N. Wadia Maternity Hospital. 3. B. J. Wadia Hospital for Children with a Solarium.	113	121	35	150	32	8	26	35	520
66	...	1. Albert Victor Hospital 2. Surgical Hospital. 3. Sir Kedarnath Maternity Hospital. 4. B. C. Dey Infectious Hospital. 5. Nirmalendu Tuberculosis Sanatorium. 6. Nalini Gupta Radium Annexe. 7. Raja Debendra Nath Mullick Outdoor Dispensary. 8. Panna Lal Seal Outdoor Dispensary.	110	167	42	56	33	20	10	10	448
41	...	1. King George's Hospital, Lucknow. 2. Queen Mary's Hospital, Lucknow.	96	80	26	18	42	4	6	94	366
...	12	Lady Hardinge Medical College Hospital, Now Delhi.	48	48	50	20	24	...	67	20	277

NOTE.—Mental Hospitals and beds for mental diseases are not included.

Table

College.	Hostel Accommodation.					
	Number of students for whom accommodation is available.		Monthly rent payable by each student.		Cost of messing per month per student.	
	M 1	W 2	M 3	W 4	M 5	W 6
			Rs.	Rs.	Rs.	Rs.
1. The Medical College, Madras	..	50	..	3	..	20 to 25
2. The Medical College, Vizagapatam (Madras).	48	..	3	..	18	..
3. The Grant Medical College, Bombay.	226	..	8*	..	27	..
4. The Medical College, Calcutta (Bengal).	247	22	6 to 8	7†	10	About 15-
5. The King Edward Medical College, Lahore (Punjab).	252	..	9 8 0	..	20	..
6. The Prince of Wales Medical College, Patna (Bihar).	140	..	39 to 44‡	..	25	..
7. Seth Gordhandas Sunderdas Medical College, Bombay.	144	..	9	..	20 to 25	..
8. The Carmichael Medical College, Belgachia (Bengal).	160	..	6 to 7	..	12	..
9. The King George's Medical College, Lucknow (U. P.)	247	..	8	..	15 to 20	..
10. The Lady Harfinge Medical College, New Delhi.	..	150	..	6	..	22 to 30-

\* During vacations monthly rent payable by each student is Rs. 3-12-0.

† This is payable by non-Bengalees only.

‡ This rent is annual. In addition, the 4th and 5th year students have to pay Rs. 5 each.

'M' denotes 'Men' and 'W' denotes 'Women'.

*Colleges.***B.****Teaching Staff.**

Professors.				Assistant Professors or Readers or Lecturers.			Demonstrators.		
I. M. S.	P. M. S.	Others.		P. M. S.	Others.		P. M. S.	Others.	
		Stipen- diary.	Hony.		Stipen- diary.	Hony.		Stipen- diary.	Hony.
7	8	9	10	11	12	13	14	15	16
4	14	1	..	32	4	3	2	8	7
1	12	..	..	25	4	..	9	2	..
3	4	12	1	2	5	1	..	38*	..
6	8	1	..	4	..	..	10	15†	..
9	1	..	..	18+2‡	..	..	18	..	..
3	4	3	..	9	9	..	1	10	..
..	..	4	21	..	5	11	..	21	..
..	..	15	14	..	5	5	..	26	16
1	3	4	..	3+1†	11	1	..	1	..
0 (W. M. S.)	..	2	..	..	9	..	..	1	..

\*14 Tutors and 24 Demonstrators.

† I. M. S.

‡ I. M. S. (part time).

College,	Receipts for 1936-37.					Total expenditure for 1936-37.
	Government grant.	Grants from other public bodies.	Income from endowments.	Fees from students.	Income from other sources.	
	1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. The Medical College, Madras	...	...	...	1,14,787	85,749	5,80,058
2. The Medical College, Vizagapatam (Madras).	...	...	...	47,795	2,460	2,81,825
3. The Grant Medical College, Bombay.	91,838	...	497	1,78,769	17,073	2,88,177
4. The Medical College, Calcutta (Bengal).	4,18,853	7,497	6,203	1,13,409	84,275	4,18,853
5. The King Edward Medical College, Lahore (Punjab).	4,29,973	...	13,178	96,167	18,019	5,56,449
6. The Prince of Wales Medical College, Patna (Bihar).	2,48,189	...	...	43,883	...	2,48,189
7. Seth Gordhandas Sunderdas Medical College, Bombay.	...	1,48,078	...	1,07,384	...	2,56,862
8. The Carmichael Medical College, Belgachia (Bengal).	15,000	...	462	1,82,976	26,093	2,19,181
9. The King George's Medical College, Lucknow (U. P.)	2,70,372	...	11,886	47,313	18,857	4,18,458
10. The Lady Hardinge Medical College, New Delhi.	1,84,181	11,000	10,040	35,316	18,596	2,30,351

## Colleges.

C.

Expenditure for 1936-37 on				Annual charges for each foreign student.		Total amount of fees charged from a student for the whole medical course.		Scholarships or Freeships awarded		
Library.		Reading Room.	Students' Club.					No.	Amount.	
Staff.	Students.			M	W	M	W		M.	W.
7	8	9	10	11	12	13	14	15	16	17
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.
( 5,570 )	...	...	...	( 400* )		900 if paid in advance or 200 per annum.	Presidency Students Free. Outsiders pay twice the ordinary rates.	F 177 S 9	2,580	...
									( 9,080 )	
768	...	5,764	...	...	...	1,000	Free.	6	940	360
	( 3,383 )		...	1,200	1,200	1,225	1,225	2	...	40 per men-sem.
								46	(10 to 30 per men-sem.)	
	( 1,499 )		1,000	( 1,128 )		1,225	1,225	76	13,225	...
( 3,088 )		6,857	9,026	850	850	1,110	1,110	45	8,930	460
793	...	...	...	...	...	1,012	1,012	12	( 3,240 )	
( 4,478 )		204	9,403	...	...	1,278	1,278	45	5,376	1,062
( 1,584 )		1,828	5,203	...	...	1,515	...	16	3,028	...
( 2,487 )	...	...	...	2,000	2,000	835	833	20 and 28	( 6,206 )	
( 1,211 )	...	...	...	...	1,500	...	1,000	Varies.	...	3,865

\* For non-Madrasis.

† Capitation charge payable by each Province or Indian State.

‡ Women students belonging to the Madras Presidency are exempted from the payment of fees.

|| 20 Scholarships and 28 half-freeships. The number of Freeships or Half-Freeships awarded is 5 per cent. of the total number of students.

§ An extra fee of Rs. 500 for the whole medical course is required to be paid by students not belonging to the Bombay Presidency.

F—Freeships.

S—Scholarships.

‘M’ denotes ‘Men’ and ‘W’ denotes ‘Women.’



# MEDICAL COLLEGES.

TABLE D.

Particulars regarding the teaching of Midwifery in Medical Colleges.

Particulars.	Medical College, Madras.	Medical College, Vizagapatam.	Grant Medical College, Bombay.	Seth Gordhandas Sunderdas Medical College, Bombay.	Calcutta Medical College, Calcutta.
(a) Students Annual Entry . . . . .	120	50	120	80	105
(b) Maternity Beds . . . . .	116	157	40	150	64
(c) Students signed up for labour cases in 1936.	95	28	121	52	77
(d) Confinement cases available in 1936 . . . . .	4,007	4,057	Sufficient to enable students to conduct 20 each.	1,040	1,476
(e) Increase in (d) from 1932 to 1936 . . . . .	552	300	338.	670	585
(f) Time allotted to { (i) Midwifery and Infant Welfare. (ii) Gynaecology . . . . .	4 months 2 months	2 months 1 month	6 months	12 weeks 12 weeks	Students do three months' duty in the Obstetrical and Gynaecological wards including 1 month's internal duty.
(g) Is (f) whole time . . . . .	3 months whole time.	Yes	3 months whole time.	(i) Yes. (ii) No.	One month on whole time duty as internal duty students. 10 or more if possible.
(h) Deliveries personally conducted by each student.	20	20	20	20	Yes.
(i) Is (h) shared by other students . . . . .	No.	No.	No.	No	Yes.
(j) Number of systematic lectures given annually.	74	75	90	30 to 34 and 30 clinical demonstrations.	80 lectures and 20 clinical demonstrations.

TABLE D.—*concl'd.*  
Particulars regarding the teaching of Midwifery in Medical Colleges.

Particulars:	Carmichael Medical College, Belgachia.	King George's Medical College Lucknow.	King Edward Medical College, Lahore.	Prince of Wales Medical College, Patna.	Lady Hardinge Medical College, New Delhi.
(a) Students Annual Entry . . . . .	110	48	90	40	25*
(b) Maternity Beds . . . . .	56	32	24	70	40
(c) Students signed up for labour cases in 1936	88	28	70*	34	10
(d) Confinement cases available in 1936 . . . . .	2,208	291	513	760	935
(e) Increase in (d) from 1932 to 1936—	1,452	214	256	320	287
(f) Time allotted to { (i) Midwifery and Infant Welfare. (ii) Gynaecology . . . . .	3 months	4½ months	3 months	7 months { 2/3 1/3	{ 1 month. 2 months.
(g) Is (f) whole time . . . . .	1 month whole time.	No	Yes	Yes	Yes.
(h) Deliveries personally conducted by each student.	More than 10	20	8 to 11	41 by each batch of 2 students.	20
(i) Is (h) shared by other students . . . . .	Yes	Yes	No	No	No.
(j) Number of systematic lectures given annually.	53	25	45	80	40

\*Of these 48 students received their maternity training in Lahore and the rest were sent to Madras and Delhi Medical Colleges for the required training.

*Medical Colleges.*

TABLE E.

Statement showing the number of beds per student available for teaching purposes in the United Kingdom and India.

United Kingdom.		India.	
Name of the Institution.	Number of beds per student.	Name of the Institution.	Number of beds per student.
1	2	3	4
<b>1. London University—</b>			
(a) Charing Cross Hospital Medical School.	2.91	(a) The Medical College, Madras	1.71
(b) Guy's Hospital Medical School.	0.64	(b) The Medical College, Vizagapatam.	1.57
(c) King's College	2.74	(c) The Grant Medical College, Bombay.	1.15
(d) The London Hospital Medical College.	1.93	(d) Seth Gordhandas Sunderdas Medical College, Bombay.	1.1
(e) Middlesex Hospital Medical School.	1.50	(e) The Medical College, Calcutta.	1.02
(f) St. Bartholomew's Hospital Medical College.	0.94	(f) Carmichael Medical College, Belgachia.	0.61
(g) St. George's Hospital Medical School.	4.69	(g) King George's Medical College, Lucknow.	1.3
(h) St. Mary's Hospital Medical School.	2.50	(h) King Edward Medical College, Lahore.	1.08
(i) St. Thomas's Hospital Medical School.	1.37	(i) The Prince of Wales Medical College, Patna.	1.44
(j) University College Hospital Medical School.	1.73	(j) Lady Hardinge Medical College, New Delhi.	2.35
(k) London (Royal Free Hospital) School of Medicine for W. men.	0.89		
<b>2. Leeds University</b>	1.15		
<b>3. Manchester University</b>	1.21		

NOTE.—In arriving at the figure shown in column 2 the number of students has been taken from the Report of the University Grants Committee (London) for 1935-36 and the number of beds from the British Medical Journal of 4th September 1937.

*Medical Colleges.*

TABLE F.

Name of the College.	Cost of teaching per student per year.	Cost per bed for teaching per year.
	Rs.	Rs.
1. The Medical College, Madras	2,781	1,558
2. The Medical College, Vizagapatam, (Madras)	2,107	1,580
3. The Grant Medical College, Bombay	1,006	1,246
4. The Medical College, Calcutta, (Bengal)	2,211	2,175
5. The King Edward Medical College, Lahore, (Punjab)	2,207	2,047
6. The Prince of Wales Medical College, Patna, (Bihar)	2,136	1,030
7. Seth Gordhandas Sunderdas Medical College, Bombay.	2,011	1,444
8. The Carmichael Medical College, Belgachia, (Bengal)	705	1,097
9. The King George's Medical College, Lucknow (U. P.)	2,964	2,170
10. The Eady Hardinge Medical College, New Delhi	3,960	1,687

Cost per student.	=	$\frac{\text{Expenditure on College + all attached hospitals.}}{\text{No. of students.}}$
Cost per bed for teaching.	=	$\frac{\text{Expenditure on College + all attached hospitals.}}{\text{No. of beds.}}$

*Medical Colleges.*

TABLE G.

Hostel accommodation provided for students during 1937-38.

Category.	Number of students.	Hostel accommodation provided for	Ratio of columns 2 and 3.	Average cost* per student per month.
1	2	3	4	5
			Per cent.	Rs.
Government	3,101	963	31	26
Non-Government	1,621	701	43.2	26

\*This includes hostel rent and messing charges only.

## 2. MEDICAL SCHOOLS.

The first medical school in India was established at Calcutta in 1822. Similar schools were started in Madras in 1835 and in Bombay in 1879. Since this time the number of Medical Schools has increased rapidly and there are now 18 Government and 9 non-Government schools in British India training a class of medical men and women known as Licentiates or Sub-Assistant Surgeons. Several schools began as Unani and Ayurvedic teaching institutions but all of them have abandoned this system. During the 1937-38 session there were 6,492 students in these schools; 973 students qualified during 1936-37.

**2. Preliminary education standard.**—The minimum educational qualification required for admission is usually Matriculation or an equivalent standard. The value of a higher preliminary education is however recognised and preference is generally given to applicants who have passed the I.Sc. examination. The medical schools in Bombay and Sind have definitely decided to admit only those students who have passed the I. Sc. examination. The annexed Table 'F' (page 148) shows the proportion of applicants with I.Sc. qualification to the total number of applicants for admission during 1937.

**3. General Sprawson's notes.**—In 1935 Major-General Sir Cuthbert Sprawson, C.I.E., Director-General, Indian Medical Service, wrote some notes on the Medical Schools of India. As they are as valuable today as when they were written they are reproduced below.

"There are 27 medical schools in India, they are under provincial or other local control with but little centralising influence and the staff of one school have no direct knowledge of what is being done in distant schools outside their own province. No one can have visited many of these schools without being struck by the difference in standard amongst them, by the variations in buildings, equipment and staff. There is much more difference between the best and the worst medical school than there is between a good medical school and a medical college affiliated to a University. The reason for this is not difficult to see. There have been stronger centralising and equalising influences at work among Universities and Medical Colleges than among Medical Schools. For one thing the medical colleges have of recent years had more attention paid to them and by reason of their past association with the General Medical Council of Great Britain a minimum standard for higher medical education has been arrived at a standard that it will be the work of the Medical Council of India to sustain and improve. The standard of education in medical schools is under the eye of provincial medical councils, who consider local needs; but these schools are without any central co-ordination. Whether such co-ordination is necessary or not, it is advisable that the various schools should have some knowledge of what the schools in other provinces are doing and some means of comparison. It has been suggested that a single inspecting body should visit the schools and report on them. Since these 27 schools are placed all over India, such inspection

would obviously be expensive and lengthy and is outside present consideration. But meanwhile some thing can be done and to this end information has been collected on some essential points in medical education at the schools and some of that information is given here. Certain details have been obtained from the annual reports of the medical schools and questions on other practical points have been sent to the School authorities to enable this information to be enlarged. Here I take the opportunity of thanking those authorities, whether of Government or private schools for sending me their reports and the answers to my questions. The parts of this information that lend themselves to tabulation are given in Table 'G' (pages 150-151) and some explanatory notes and comments of my own are given in the following paragraphs.

"In the comparative statement we have not tabulated replies to all the enquiries made, though the replies on other points are also interesting. Enquiry was made as to the cost to the educating authority per student per annum after laying down for the sake of uniformity certain principles on which this calculation should be made. The average cost seems to be about Rs. 300 per annum per student, though schools for women only usually cost more, probably because of the fewer number of students in comparison with the number of staff to be paid. There is, however, extraordinary variation in the replies received. Thus in School J the cost is only Rs. 60 per annum and 80 per cent. of the students are private, and in School F the cost is Rs. 62 per annum and all are private: while in School N, a women's school, the cost is Rs. 960 per annum and none are private, and in School V, where the sexes are mixed, the cost is Rs. 952 for a stipendiary and Rs. 564 for a private student; presumably reckoning without the student's fees the cost would be Rs. 952 for every student. This difference in cost per student is apparently reflected in the standard of instruction, because School N certainly compares well with others.

"Question was asked also on the preliminary standard of education before entry to the medical course. In all provinces the Matriculation or School Leaving Certificate is the standard usually taken, though one province is obtaining an appreciable number of Intermediate-passed entrants. Another province accepts women students at a lower entrance standard. I believe this to be a mistaken policy. It can be defended by representing the need for women doctors and the lack of applicants unless the entrance doors are widened: but it is doubtful if a woman who has not attained Matriculation standard can take with profit a medical course, and at any rate the time has now come when a higher demand should be made on women entrants. We should have women doctors of satisfactory standard or not at all. This leads naturally to the much bigger question whether we should try to educate a large number of students in an inferior manner or fewer students in a comparatively satisfactory manner; whether we should have many inferior schools or a few satisfactory ones. Because we cannot have it both ways. There are only a few places in each province with hospitals large enough to provide clinical material for a medical school. Further, the cost of the school and hospital

buildings, and the cost of the equipment necessary to instruct students properly both in school and hospital, are such that no province would be prepared to provide a correct standard of buildings and equipment for more than one or two schools. Perhaps more important still is the matter of the teaching staff. Except in the two largest cities where the services of a well-qualified staff can usually be obtained on a voluntary basis, there is not yet in any province a sufficiency of medical men, highly qualified enough to be considered of medical education standard, to staff more than one or two medical schools in addition to the medical colleges. If, therefore, we multiply medical schools they must, at any rate for the present, be inferior in several respects. It is a matter of policy to be decided therefore whether we should have several inferior or a few satisfactory schools and different provinces have followed different lines, while the same province has apparently changed its policy with the times. The Madras Presidency formerly had 6 or 7 medical schools, but now (1935) has only 3, two Government and one private. The Bengal Presidency has 9 schools, 6 Government and 3 private, and some of them of recent establishment. Which is the correct policy? It may be argued that many cheap doctors are wanted for the villages, to replace inferior practitioners or supply some sort of medical aid, where none exist; that it is no good sending expensive doctors there because the people cannot pay them; that it is better to send out registered medical men with some sort of qualification, however inferior, than to leave the rural population to ignorant and unqualified practitioners. It has even been said we should multiply compounders and send them to the villages since doctors will not go and cannot get a living. This question was considered at length in Madras in 1929 when a Medical Education Committee was established that decided that the Presidency did not so much need more doctors as better doctors. Experience seems to show that the average medical man, if not properly educated, when he is let loose on the world to practise his profession, himself tends to degenerate and to become hardly better than the man he is intended to replace. It is only the exceptional man who, without a satisfactory education, can make good and educate himself until he becomes a really good doctor. If that is so, it certainly seems better to have a few satisfactory schools rather than several inferior ones and that seems to be the generally accepted policy, because the average number of medical schools per province or State area works out to about 2½.

"Before examining the tabulated statement we may consider what standard in certain respects we should try to attain. From what has been said above it will be expected that most of the medical schools will be overcrowded with students, and indeed that is so, except in the case of a few schools for women. This is certainly regrettable, because overcrowding of students in proportion to laboratory accommodation and equipment, amount of clinical material, and number of teaching staff, are the most potent causes of inefficiency of education. The province with the largest number of schools has them even more overcrowded than the other provinces.

"Here I propound seven standard rules to which I consider a school should try to attain. All these rules are concerned with the proportion of patients and certain equipment to the number of students. There are doubtless other rules of proportion: I am suggesting only a few that experience has taught me are important. If anyone thinks that these standard rules tend unduly to restrict the number of students I can only give it as my experience that lower numbers tend to better education.

• Standard Rules.

Let  $x$  = Total number of students in the School.  
and  $y$  = Number of students admitted annually.

Where the instruction is a 4-year course it will generally be found that  $x = 4\frac{1}{2}y$ , and in a 5-year course that  $x = 5\frac{1}{2}y$  or a little more. This allows for failures in examination and for some students abandoning the course. If these numbers are not approximately in this proportion, and a study of the tabulated statement will show that they are often not so, then there must be some other factor dislocating the proportion, such as an unusual admission number in one or more years, or an exceptional number of students abandoning a medical career.

- (i) The sanctioned number of beds in the hospital or hospitals, including special departments, should be not less than  $5\frac{1}{2}$  times  $y$ .
- (ii) The number of beds in the hospital should be not less than  $x$ .
- (iii) The daily average of in-patients should be not less than 5 times  $y$ .
- (iv) The daily average of in-patients should be not less than  $x$ .
- (v) The average annual number of confinements available for teaching students should be not less than 10 times  $y$ .
- (vi) The number of microscopes available for teaching physiology should be not less than  $4/3 y$ .
- (viii) The number of microscopes available for teaching pathology should be not less than  $5/4 y$ .

"I will not stop to explain why I have fixed on these arbitrary numbers except to say they are the result of experience. I have fixed on the item of microscopes because they are the most expensive articles of equipment a student uses and they form a fair gauge of the general adequacy of laboratory education. I do not regard a microscope as fit for physiology teaching unless it has  $2/3$  and  $1/6$  objectives, nor for pathology teaching unless it has  $1/12$  oil immersion in addition to the other two. Deficiency in microscopes is the only item in which every medical school is below the standard of these Standard Rules and the real reason is the expense.

• The methods different schools employ to obviate this deficiency are numerous; the explanations given are, that the students do not require to prepare specimens themselves, but are shown those prepared by demonstrators; that the students do their practical classes in batches; that two or more students share one microscope; that microscopes are used in common between physiology and pathology; that microscopes are borrowed from the medical college. All these methods are unsatisfactory.



A microscope is an individual article of equipment that should be in the care of one student during the course of the practical classes. Although no school attains what I consider the correct standard so far as microscopes are concerned, the deficiency of some schools is deplorable. How can School H with 50 students admitted annually teach pathology with only 4 microscopes and School I with 115 admissions with only 8 pathological microscopes? School K has only 5 and School L but 2, while School U has only 3 microscopes for physiology, and Schools X and Y have but 3 and 2 respectively for pathology. These are notable deficiencies."

4. It will be observed that General Sprawson laid down certain standard rules and the statement annexed to his notes (Table 'G', pages 150-51) indicated the extent to which each school conformed with these rules. The information collected in connection with this Review permits of an assessment being made as to whether the schools are still deficient in the numbers of beds and microscopes available for teaching as judged by the standards prescribed by General Sprawson and this is indicated in the following table.

School.	Total number of students during 1937-38.	Annual Entry.	Number of beds available for teaching.	No. of Microscopes available for teaching.		Deficiency or otherwise according to General Sprawson's formula.
				Physiology. ii	Pathology. iii	
<i>Government.</i>						
1. Stanley Medical School, Madras.	334	66	634	88	1 for each 19	Conforms to standard in all respects—i, ii and iii.
2. Lady Willingdon Medical School for Women, Madras.	86	22	595	26	19	Deficient in ii and iii.
3. B. J. Medical School, Poona.	342	60	300	45	38	Deficient in all i, ii and iii.
4. B. J. Medical School, Ahmedabad.	286	50 to 60	290	16	9	Deficient in ii and iii.
5. Campbell Medical School, Calcutta.	541	150	717	33	31	Do.
6. Medical School, Dacca.	440	100	261	47	28	Deficient in all.
7. Lytton Medical School, Mymensingh.	220	50	124	14	14	Do.
8. Ronaldshay Medical School, Burdwan.	217	60	150	17	23	Do.
9. Chittagong Medical School, Chittagong.	207	50	116	( 29 )		Do.
10. Jackson Medical School, Jalpaiguri.	131	25	101	13	12	Do.
11. Medical School, Agra.	282	52	266	41	48	Do.
12. Women's Medical School, Agra.	97	25	146	9	7	Deficient in ii and iii.
13. Medical School, Amritsar.	524	100	293	31	35	Deficient in all.
14. Robertson Medical School, Nagpur.	237	40	222	26*	18	Do.

\* For both Physiology and Biology.

School.	Total number of students during 1937-38.	Annual Entry.	Number of beds available for teaching.	No. of Microscopes available for teaching.		Deficiency or otherwise according to General Sprawson's formula.
				Physiology.	Pathology.	
<i>Government—contd.</i>						
15. Darbhanga Medical School, Laheriasera.	213	44	202	29	19	Deficient in all.
16. Berry White Medical School Dibrugarh.	200	50	129	7	14	Do.
17. Orissa Medical School, Cuttack.	178	40	215	21	17	Deficient in ii and i
18. Medical School, Hyderabad (Sind.)	112	30	148	17*	7	Do.
<i>Non-Government.</i>						
19. Missionary Medical School for Women, Vellore.	63	20	252	( 46 )		Do.
20. Miraj Christian Medical School, Miraj.	47	25†	420	11	6	Do.
21. National Medical College, Bombay.	275	50	81	( 18 )		Deficient in all.
22. Bankura Sammilani Medical School, Bankura.	197	49	104	( 16 )		Do.
23. Calcutta Medical School, Calcutta.	403	100	166	16	10	Do.
24. National Medical Institute, Calcutta.	391	100	240	18	16	Do.
25. Women's Christian Medical College, Ludhiana.	130	30 to 36	260	42	16	Do.
26. The Ludhiana Medical School for Men, Ludhiana.	68	25	50	8	8	Do.
27. King Edward Hospital Medical School, Indore.	269	61	198	21	16	Do.

\*For both Physiology and Biology.

† Admissions in every alternate year.

( ) For both Physiology and Pathology.

**5. Rules regarding failed students.**—Rules regarding failed students in medical schools in the various provinces, except for slight variations, are more or less the same. They are very lenient towards the final year students, as such students are allowed to continue till they pass the final professional examination. In the Bombay Presidency, however, if a student fails to qualify in the final L. C. P. S. examination in five attempts his name is removed from the school rolls. In Madras, a student who fails three or more times at the 1st and 2nd professional examinations, can subsequently appear privately, but if he fails three or more times in the third and final professional examinations he is required to undergo a clinical course at the Hospital in order to be eligible to appear again at those examinations. In the United Provinces each unsuccessful student is given two chances to appear in the subject or subjects in which he fails. In case of failure in both the chances, he is required to appear in all the subjects subsequently. In the Central Provinces the 2nd year students

and in Assam the 2nd and 3rd year students are given four chances to re-appear at the examination in which they fail. After the fourth failure their names are struck off the rolls of the school. In Bengal and the Punjab the 2nd and 3rd year students can continue to appear at their annual examinations till the fourth failure, but Bombay allows its students only two chances in the first professional examination for the L. C. P. S. and three chances in the second professional (first L. C. P. S.) examination. In the Punjab the first year students are allowed four chances, in the Central Provinces five and in Bihar and Orissa 2, but in Assam and in some of the schools in Bengal the first year students are not retained in the school if they fail to pass the annual examination.

**6. Hostel accommodation.**—Hostel accommodation as a whole is inadequate both in Government and non-Government schools. Only 44.4 per cent. of the students in Government and 40.3 per cent. in non-Government schools can be provided with such accommodation. In Bengal five medical schools have no hostel accommodation at all. Hostel accommodation for women students is comparatively sufficient, it being 92 per cent. in non-Government and 61.5 per cent. in Government institutions.

**7. Need for a uniform standard of medical education.**—It has been recognised for some time past that it should be the aim to raise the level of medical qualifications and to maintain a uniform standard of medical education throughout India, but provincial needs and financial considerations have stood in the way of its realization. The inevitable distinction between medical graduates and licentiates has been a source of considerable dissatisfaction to the latter who, after successfully undergoing an arduous course of studies for five years, are given a lower status. They have difficulties in prosecuting higher studies outside India. Even in India facilities for acquiring higher qualifications are not made easy for them. Their position hardly improves however successful they might be in their individual efforts to gain further knowledge and also in the actual practice of medicine and surgery. Their qualifications are not recognised by the Medical Council of India. The considerations which have prevailed so far in continuing the licentiate course of studies no longer exist, higher scientific medical education has become popular and there is not likely to be any dearth of well qualified candidates for admission to the Medical Colleges. The time has therefore arrived for adopting a uniform standard of medical education and the Government of Madras have already decided that with effect from 1938 fresh admissions to the Stanley Medical School, Madras, and the Lady Willingdon Medical School for Women, Madras, should be stopped. The former institution will be converted into a medical college for men and women.

## **8. Summary of history and activities of Medical Schools in India.**

### **STANLEY MEDICAL SCHOOL, MADRAS.**

It is a Government Institution.

The origin of the present day medical practitioners known by the appellation of the L. M. P. can be traced as far back as the days of the

East India Company when they were styled as Dressers and later on called Hospital Assistants trained under a 3 years' course in the Medical College, affiliated to the Madras University, till 1882 when they were transferred to an Auxiliary Medical School at Royapuram. But as these measures proved abortive they were again transferred to the Medical College in 1887. Finally they were transferred to the School established at Rayapuram in 1903 and became a separate entity thereafter. The three years' course of training being found insufficient, the Government raised it to 4 years in 1904. In 1911 the designation of Hospital Assistants was changed to that of "Sub-Assistant Surgeons" and in 1912 Government ordered that students passing out of the School may affix the letters L. M. P. (Licensed Medical Practitioner) to their names. From the academic year 1933 the Government sanctioned the introduction of a five years' course for the L. M., P. to afford the students the opportunity of more thorough medical education and thereby place them professionally on a par with those who acquire the Medical Diploma given by the Royal Colleges in England. His Excellency the Rt. Hon'ble Sir George Frederick Stanley, P.C.G., C.I.E., C.M.S., Governor of Madras, and Lady Stanley inaugurated the five years' course and on this occasion His Excellency very graciously acceded to the request to call the School by his name and from that date onwards the School is known as the Stanley Medical School, Madras. A new building for the School is under construction and will ere long remove a long felt necessity.

Admission to the School is made on the basis of educational qualifications, graduates being given preference to the Intermediate and Matriculation passed candidates—a pass at the latter examination being the minimum qualification required. On the date of admission to the School a candidate should be neither below 16 nor above 22 years of age. Selection for admission is made by a Committee appointed by Government. Candidates of all nationalities are eligible for admission, but selection is made on a communal basis as prescribed by Government in G. O. No. 712-Public, dated the 2nd July 1929 for recruitment to Public Service. Consideration is also given to secure an adequate representation of candidates speaking various languages. No women students are admitted. The number of fresh admissions every year is limited to 66 out of which 4 seats are reserved for students from Indian States.

The number of applications received during 1935, 1936 and 1937 was 222, 223 and 201 respectively out of which 32, 45 and 36 respectively were from candidates with I. Sc. or higher qualifications.

A student who fails in the Board examination is required to take a fresh course at the School in the subject or subjects failed in after each failure, before he is eligible to sit for the next Board examination held after every 6 months in April and October. A student who fails three times or more in the first and second Professional examinations can, however, subsequently appear privately. A student who fails three or more in the 3rd and Final Professional examinations need not undergo a fresh course at the School but is required to undergo Clinical course at the Hospital on payment of the prescribed amount of school fee for such a

course. Students who fail in more than one subject are required to reappear at the Board examination in all the subjects and no compartmental system is allowed. No student is promoted to the next higher class unless he passes the Board examination in all subjects, but this rule does not apply to students who fail either in Hygiene or in Pharmacology in third year Board examination. A student who fails in the Final Part I examination in January has to appear in April examination and one who fails in April examination has to reappear in October next while failing in October has to appear in January next.

There is one Demonstrator for every 20 students in a practical class, the Lecturers, etc., also acting as Demonstrators for the purpose. Not more than 40 students work at a time in a practical class.

A student's Union is functioning and there is a reading room attached to the Hostel.

During 1936-37 a paper on "The value of the Aldehyde and Stiburea tests in the diagnosis of Kala-Azar" by members of the staff was published in the Journal of Tropical Medicine and Hygiene—April 1936 issue.

#### MISSIONARY MEDICAL SCHOOL FOR WOMEN, VELLORE (MADRAS).

Missionary medical work for women and children was started in 1900 in Vellore in a small room in the Mission bungalow. This Dispensary grew so rapidly that ere long the urgent need of a Women's Hospital was felt. In 1899 Mr. Robert Schell, President of one of the New York City Banks gave, as a memorial to his wife, sufficient money to erect the Mary Taber Schell Hospital and Dispensary with an accommodation for 40 beds. This hospital was completed in 1902 and enlarged to 60 beds in 1923. The Missionary Physicians in charge of the hospitals and districts soon felt the necessity of training India's young women as doctors to meet the increasing demand for medical aid for women and children. In 1914 a committee was formed to consider the opening of a medical school for women in South India and when the Committee's plans for opening such a medical institution were made public, 150 women candidates applied for admission out of which 18 were admitted and ultimately 14 finished their course and took the diploma. The School was first accommodated in rented buildings in Officers' Lines. Mrs. Henry W. Peabody of America organised a campaign for the raising of money for the buildings as a result of which in 1922 sufficient funds were assured for the erection of buildings for the Medical School and Hospital. The Madras Government contributed Rs. 5 lakhs to the building fund and has continued to give an annual maintenance grant. The School also receives an annual maintenance grant from the Travancore Government. In 1918 Lord Pentland declared the Medical School open and the Vorhees College of Vellore put its laboratories and lecture rooms at the disposal of the students. In 1923 Her Excellency Lady Willingdon opened the Cole Dispensary. In 1928 Viscount and Viscountess Goschen opened the Hospital. In 1932 Sir George and Lady Beatrix Stanley opened the Academic buildings at College Hill and in 1937 Lord Erskine,

Governor of Madras, opened the Deep X-Ray Therapy and Radium building.

S. S. L. C. with good marks in English and Science is the preliminary education standard required for admission. While selecting candidates for admission preference is given to applicants belonging to the Madras Presidency and possessed of best educational qualifications and reliable recommendations. Five seats are allotted to students coming from Travancore. The number of applications received during 1935, 1936 and 1937 was, 64, 75, and 66 respectively out of which 7, 9 and 10 respectively were from candidates with I. Sc. qualifications. Government orders regulate the procedure in regard to failed students. About 20 to 25 students work at a time in a practical class.

Arrangements exist for the training of compounders, laboratory technicians and nurses

The sports Club provides facilities for tennis, badminton and basket ball, etc.

#### THE LADY WILLINGDON MEDICAL SCHOOL FOR WOMEN, MADRAS.

It is a Government institution open only for women students. It was opened by H. E. Lady Willingdon in 1923. It commenced its first session in July 1923 with 20 stipendiary students in the Victoria Buildings, Egmore, Madras. In 1927, a house next to Victoria buildings was rented and in 1933 the School was transferred to 'Laxmi Villa'. From the very beginning the students study Anatomy in a building on the Lloyd's Road, not far from the Queen Mary's College. Clinical instruction is imparted to the students at the Victoria Caste and Goshia Hospital, Triplicane, and twice a week at the Royapettah Hospital.

Candidates are selected on the basis of their educational qualifications, the minimum qualification required being a pass at the Matriculation examination of the Madras University or an equivalent thereof. The number of applicants during 1935, 1936 and 1937 was 26, 39 and 43 out of which 1 in 1935 was of Intermediate standard.

The annual examinations are held in April every year. Those who fail to pass these examinations in April undergo a further course of study in the subject or subjects concerned and appear at the Board examination in October. If they pass in October, they are promoted to the next higher class and study from October to September next and appear for the Board Examination in the following October. This batch of students is known as the "B" Batch as against the students who take their examination in April every year and who are known as the "A" Batch of students. The students in the 3rd year who fail in Hygiene or Pharmacology are, however, allowed to proceed with their studies in the fourth year.

The number of students working at a time in a practical class does not exceed 10.

## BYRAMJEE JEEJIBHOY MEDICAL SCHOOL, POONA (BOMBAY).

This school was the outcome of a health disaster that forced the Bombay Government to provide facilities for the training of medical men in the Presidency. As the name of the School indicates, its foundation was in part due to the munificence of Mr. Byramji Jeejibhoy, C.S.I., who donated Rs. 10,000 and a large plot of land with a bungalow to serve as residence for students. The School was started on the 1st November 1878 with 82 pupils but was formally opened by Sir Richard Temple on the 7th December of the same year. At first the course of studies covered a period of 3 years, successful candidates being given a diploma of Hospital Assistants—a term which was later changed to Sub-Assistant Surgeons. Classes consisted of Native military pupils, the stipendiary pupils and the civil medical pupils. Besides these there were paying students and Native State students. The School was affiliated to the College of Physicians and Surgeons, Bombay, in 1913, and the course now extends to 4 years.

The preliminary education standard required for admission up to June 1936 was Matriculation but from June 1937 it has been raised to I. Sc. examination, B group comprising Chemistry, Physics and Biology.

• 25 per cent. of the total vacancies are reserved for women students, and 25 per cent. for students from backward classes. Students from other provinces are also admitted if there are vacancies after providing for the students of the Presidency.

The number of applications received in 1935, 1936 and 1937 was 322, 319 and 63 respectively. 14, 35 and 63 applications in 1935, 1936 and 1937 respectively were received from students possessing I. Sc. qualifications.

Students who fail to pass the first professional examination for the L. C. P. S. in two attempts, the second (now called the first L. C. P. S.) in three attempts and the Final (now called the Final L. C. P. S.) in five attempts are not permitted to continue their studies at the School.

The average number of students working at a time in a practical class is 35.

The School has a regular Gymkhana Club. A small Reading Room, subscribing to non-professional newspapers, is attached to it. Sporting activities are managed by a committee composed mainly of students.

9 papers were published by members of the staff during 1936-37.

## BYRAMJEE JEEJIBHOY MEDICAL SCHOOL, AHMEDABAD (BOMBAY).

The School opened on the 16th June, 1879 with 14 pupils, the Hall of Huttesing and Prembhai Civil Hospital being used for lectures. In November 1879 the number of pupils increased to 59 and the School and its hostel were accommodated in a hired building. A donation of Rs. 20,000 was offered by Mr. Byramji Jeejibhoy, C.S.I., on the condition that Government would subscribe at least an equal amount. The School building was completed in 1881. In 1909 Government provided a hostel for 80 students

and a bungalow for the Superintendent. In 1917 the School was affiliated to the College of Physicians and Surgeons, Bombay. A Committee was set up in 1936 with the Surgeon General as Chairman and Sir Mangaldas Mehta as an additional member to find ways and means for improvement in teaching, etc. The Committee drew up a scheme for the guidance of the heads of the schools. This scheme was approved by Government in 1936, and the School has undergone many changes.

The preliminary education standard required for admission has been raised from the current year (1936-37) to Intermediate Science, B group. Prior to this Matriculation was the minimum qualification required. The number of applications received in 1935, 1936 and 1937 was 302, 292 and 72 with 9, 28 and 42 respectively having I.Sc. qualifications. Of the total vacancies 25 per cent. are reserved for women students and 25 per cent. for students from the backward classes. To pass the examination a student must obtain, in aggregate, at least 40 per cent. of the total marks, the pass marks for each subject being 30 per cent. Unsuccessful candidates are allowed 2, 3 and 5 attempts at the 1st, 2nd and final L.C.P.S. examinations respectively.

On an average 25 students work at a time in a practical class of Chemistry, Physics, Biology, Physiology and Materia Medica and 12 in a practical class of Bacteriology and Pathology.

Students have their own Library and Reading Room where they play indoor games as well.

#### MIRAJ CHRISTIAN MEDICAL SCHOOL, MIRAJ, (BOMBAY).

The Miraj Christian Medical School is a non-Government institution and was started in 1900 by late Sir William Wanless with a class of 3 students with the object of training men for Hospital Assistants to work in the Miraj Mission Hospital which was founded by him in 1892. He with his colleagues gave a three years' course to these students. With the co-operation of other Mission Hospitals 12 students were admitted to a new class three years later. This class was given a 4 years' course and since then a single class was taught under that system till 1915. The School is now maintaining only two classes simultaneously admitting students once in two years. In 1918 the School was affiliated to the College of Physicians and Surgeons, Bombay, and in 1919 for the first time it sent its students for the Final L.C.P.S. examination of Bombay. All non-matriculates had to take up then an entrance examination at the B. J. Medical School, Poona, before they were admitted. The last three classes have been given a 5 years' course of study.

The preliminary education standard now required for admission to the School is Matriculation. At the time of selection for admission preference is given to students supported by the various Missions, Native States and private Institutions.

The number of applications received in 1936 was 62 out of which 15 were from candidates with I Sc. qualification. There no admissions in 1935 and 1937.



Only two chances are given for students appearing for the First and Second Professional Examinations and a third chance is given, though rarely, to those who fail in one or two subjects but pass with credit in others.

On an average 20 students work at a time in a practical class.

Besides the School Library which contains medical books and journals, students run their own Reading Room and conduct all indoor and outdoor games such as tennis, football, cricket, base ball, ping pong etc.

During 1936-37 a member of the staff published papers on (i) Causation, Pathology and Treatment of Duodenal Ulcer and its Complications and (ii) Transplantation of the Ureters, in the Christian Medical Journal of India.

#### THE NATIONAL MEDICAL COLLEGE, BOMBAY.

It is a non-Government institution and was founded in 1921, by a few zealous workers engaged in the medical and scientific professions, amongst whom the name of Dr. D. D. Sathaye deserves special mention. The object was to diffuse amongst the youths of the country knowledge about the progressive western medical science and also to preserve and popularise the best in the Ayurvedic and Unani systems. The College was affiliated to the "Tilak Maharashtra Vidyapeeth". In 1924 the Ayurvedic and Unani departments were abolished and the Institute was affiliated to the College of Physicians and Surgeons, Bombay. The management of the Institution is vested in a council called the College Council. In 1925, the late Dr. A. L. Nair, the well known philanthropist of Bombay, built and equipped a charitable hospital in memory of his mother, Bai Yamunabai L. Nair, and handed over the same to the Council of Management of the College to be used as a training ground for its students. The College was accommodated in a rented house up to 1927, when the College building was completed and opened by H. E. Sir Leslie Wilson, the then Governor of Bombay. This institute is dependent for its funds on public support and is a unique example of voluntary effort and co-operative spirit on the part of many eminent medical men of the city. This feature of the Institute was highly commended in his speech by H. E. Sir Leslie Wilson.

The minimum education standard required for admission to the College is I. Sc. from June 1937, before which matriculates of a recognised University were eligible for admission. Students are admitted according to merit and not on communal basis. About 10 seats are reserved for women students.

The number of applications received during 1935, 1936 and 1937 was 353, 346 and 196 respectively. Out of these 4, 46 and 121 applicants in 1935, 1936 and 1937 respectively were of the Intermediate Science standard.

No special rules exist for the failed candidates but they are governed by the rules and regulations laid down by the College of Physicians and Surgeons of Bombay.

The number of students working at a time in a practical class, on an average, is 25 to 30.

There is a students' Gymkhana in which the students are given facilities for participating in all indoor and outdoor games. A Reading Room also exists for the students; where medical books and periodicals and daily and weekly newspapers are provided.

#### CAMPBELL MEDICAL SCHOOL, CALCUTTA, (BENGAL).

It is a Government institution.

In the earlier part of the 19th Century in Bengal two systems of medicine *viz.*, Ayurvedic and Unani were practised, systems which were undeveloped and run mostly on speculative lines. With the increasing demand for Indian doctors it was deemed necessary to establish a central institution for a more uniform and better system of education in medical science and with the approval of the Government of India a school was opened in October 1822 in two sections—one Ayurvedic and the other Unani. On the opening of the Calcutta Medical College in 1835, the Ayurvedic and Unani systems of instruction were abolished and the School classes were held side by side with the classes for the College course. Later, when the Vernacular Schools were opened up country in Agra and Lahore, the Vernacular classes in the College were abolished, but in 1852 they were again started owing to the increasing demand for this class of medical men. In 1873, for lack of accommodation at the College, the classes were transferred to the Campbell Hospital and a school named Campbell Medical School after the then Lt.-Governor Sir George Campbell was opened, the course of study in the first instance being limited to 3 years. In 1895 the period was extended to 4 years which still continues. The examinations were controlled by the Inspector General of Civil Hospitals, assisted by a Committee of Examiners selected by him. With the constitution of the State Medical Faculty in 1914 all control in connection with the examinations was transferred to that body.

Matriculation or an equivalent examination is the minimum qualification required for admission to the School. Selection for admission is made by a committee appointed by Government, admissions being ordinarily restricted to the natives of the Presidency and Rajshahi Divisions, Bengal. 25 per cent. of the total vacancies are reserved for Mohanmedans and 2 seats each for the Government of Assam and the State of Sikkim.

The number of applications received in 1935, 1936 and 1937 was 442, 403 and 366 respectively. 57, 56 and 42 candidates with I.Sc. qualifications applied in 1935, 1936 and 1937 respectively.

A first year student who fails at the School test examination is removed from the rolls, but 2nd, 3rd and 4th year failed students continue to sit for subsequent examinations every sixth month till the 4th failure, after which their names are removed except in the case of fourth year students who can be retained in the School until they pass.

The maximum number of students working at a time in a practical class is 27, the average number being 20.

Arrangements exist for the training of compounders. The course of instruction runs to 12 months and on its completion an examination is

held. Those who pass the examination are then required to undergo a further year of training as an apprentice in the Dispensary attached to the hospital or that of a recognised Chemist or Druggist. They are then eligible to sit for the Compounders' Certificate examination held by the State Medical Faculty of Bengal.

A course of instruction in First Aid to the injured is given annually to the second year Licentiates and Compounder students by a Demonstrator of Anatomy specially detailed for the purpose.

Football, cricket, tennis and hockey are played under the auspices of the Students' Athletic Club.

During 1936-37 articles on (i) A few facts regarding Cerebro-spinal fever as seen amongst the patients of the Campbell Hospital and (ii) Cholera—with special reference to the cases as seen amongst the patients of the Cholera Ward of the Campbell Hospital, Calcutta, were published by a member of the staff, in the "Antiseptic" Madras.

#### DACCA MEDICAL SCHOOL, DACCA (BENGAL)

It is a Government institution, opened in 1875 with 160 students. The minimum qualification for admission at that time was Vernacular Middle Examination pass certificate and the diploma conferred on successful candidates was V.L.M.S., the duration of the course being 3 years. In 1895-96 the period of study was extended to 4 years and the minimum qualification for admission was raised to English Middle Examination pass certificate. This was raised again in 1905-06 to Matriculation pass certificate. From 1895-96 onwards the successful candidates were awarded the L.M.P., while since 1916, when the control of the examination was transferred to the Bengal State Medical Faculty, they are granted the L.M.F.

The number of students on the roll at present is 467 and the minimum qualification for admission is the Matriculation certificate of the Calcutta University or its accepted equivalent. The number of applicants during 1935, 1936 and 1937 was 178, 213 and 171 respectively of which 21, 20 and 20 respectively were of the Intermediate Science standard. Candidates are selected according to their educational qualifications by a committee appointed by Government. No seats are reserved for women students or for students from other provinces. 25 per cent. of the total number of vacancies are reserved for Mohammedan candidates and 10 per cent. for candidates with special claims, *e.g.*, candidates from scheduled classes.

Students who fail at the school test have to attend a further course before being eligible for appearing at a subsequent examination. The same is the case with those who fail at the State Medical Faculty Examination. The number of students working at a time in a practical class is 25. Arrangements exist for the training of compounders and dressers.

There is a students' athletic club managed by the students themselves under the supervision of the Secretary who is a member of the staff. There is also a library room where the students are given adequate facilities to utilise the library books on depositing Rs. 10 as caution money.

A paper on 'a case of Rhino-Meningorrhoea' was published in 1936. . "

### THE LYTTON MEDICAL SCHOOL, MYMENSINGH, (BENGAL).

It is a Government institution. In 1920 it was resolved at a public meeting to submit a representation to the Government asking for the establishment of a medical school. A committee was formed known as the "Medical School Foundation Committee" who submitted a memorial to the Government and decided in consultation with the Surgeon General with the Government of Bengal to locate the school at Mymensingh. In 1921 the Government of Bengal approved the scheme at an estimated cost of Rs. 5,10,000. The local District Board agreed to contribute Rs. 58,882 towards the initial cost of the scheme. Some help was also received from the King Edward Memorial Fund, but on account of financial stringency, the Government of Bengal could not contribute their full quota, with the result that the scheme for the construction of hostels and teachers' quarters had to be postponed. The School opened in July 1924. It has accommodation for 200 students.

The minimum qualification required for admission to the School is the Matriculation certificate. Candidates seeking admission are required to appear before a selection committee appointed for the purpose. As far as possible selection is made on a territorial basis, 25 per cent. of the total number of vacancies being reserved for Mohammedans. Women and military medical pupils are not admitted to this School. Students from other provinces are admitted if seats are available. The number of applicants in 1935, 1936 and 1937 was 49, 76 and 84 respectively of which 6, 5 and 4 respectively were those who had passed the Intermediate Science examination. If a first year student fails in the February test, his name is struck off, but the 2nd and 3rd year students are allowed four chances to pass the examination. There is no such restriction in the case of the 4th year students.

The number of students working at a time in a practical class does not exceed 15 in Physiology, Pathology and Materia Medica, 16 in Anatomy demonstrations and 125 in Anatomy dissections.

The School maintains a class for compounders in which 25 students are trained annually. There is the Lytton Medical School Society with athletic, social, dramatic and literary sections. The Superintendent is its president. There is one common room for students and books and journals are distributed to students for reading.

### . RONALDSHAY MEDICAL SCHOOL, BURDWAN, (BENGAL). .

It is a Government institution. The foundation stone was laid in 1920 by His Excellency Lord Ronaldshay, the then Governor of Bengal, and the school was opened on the 16th January, 1922. The hostel buildings are a free gift made by the Maharajahdiraj Bahadur of Burdwan.

The preliminary education standard required for admission is Matriculation or an equivalent examination of a recognised University. Admission

is made on the merits of candidates and on a territorial basis by a selection committee appointed by Government. 25 per cent. of the total vacancies are reserved for Mohammedans and 15 per cent. for depressed classes. There is no arrangement for the training of women students. Students from other provinces are admitted but no seats are reserved for them.

138, 118 and 99 applications were received in 1935, 1936 and 1937 out of which 16, 14 and 8 respectively were from candidates with I.Sc. qualifications.

Unsuccessful students have to undergo training for another session (six months) in each subject and to attend special practical classes held for them. Students who fail in the final year examination have also to do hospital duty besides attending the usual lectures and practical classes.

For purposes of practical classes students are divided into batches; each batch consists of 10—12 students.

Arrangements exist for the training of candidates desirous of qualifying as compounders and dressers. The opening of a special class for the training of sanitary assistants is under consideration.

There is a Library and a Reading Room for students. Football, hockey, badminton, volley ball and gymnastic are organised under the auspices of the Athletic Club of the School.

#### CHITTAGONG MEDICAL SCHOOL, CHITTAGONG. (BENGAL.)

It is a Government institution. It was opened in June 1930.

The minimum qualification for admission is the Matriculation certificate granted by a recognised University. The number of applicants during the years 1935, 1936 and 1937 was 68, 79 and 71 respectively of which 2, 4 and 4 respectively were those who had passed the Intermediate Examination in Science. Candidates are selected according to their educational qualifications, but the Superintendent or the Selection Committee, if one is appointed, has the power to fill up not more than 15 per cent. of the total number of vacancies with candidates who have special claims for consideration, special regard being given to the claims of candidates from the depressed classes. Preference is given to candidates from the Chittagong Division. 25 per cent. of the total number of vacancies are reserved for Mohammedans.

The name of a first year student who fails to pass his annual examination in February is struck off the rolls, but the 2nd and 3rd year students are allowed four chances to pass the examination. There is no such restriction in the case of students studying in the final year.

The proportion of teachers and demonstrators to students is the same as prescribed in the schedule sanctioned by the Government of Bengal. The number of students working at a time in a practical class is 16 on an average. Classes for compounders are also held in this School. There is no students' club. The students use the School Library as their Reading Room during working hours.

### JACKSON MEDICAL SCHOOL, JALPAIGURI, (BENGAL).

It is a Government institution and was started in 1930. 64 students have since passed out of the School after obtaining the L.M.P. diploma.

Matriculation or an equivalent examination is the minimum educational qualification required for admission to this school. Admissions are made by selection. Preference is given to Mohammedans and depressed classes upto 25 and 15 per cent. of the total vacancies respectively. No women students are admitted.

The number of applications received during 1935, 1936 and 1937 was 57, 59 and 49 respectively. 3, 4 and 3 applications in 1935, 1936 and 1937 respectively were received from students with I.Sc. qualifications.

Failed students are required to attend a further course of training and are allowed only four chances to reappear at the examination at which they fail, but there is no such restriction for the final year failed students.

The maximum number of students working at a time in a practical class is 16.

The Athletic Club, which provides mainly for football, hockey, cricket and tennis, is managed by an Executive Committee formed of staff and students. The School has a Reading Room within its premises equipped with books and journals.

### BANKURA SAMMILANI MEDICAL SCHOOL, BANKURA, (BENGAL.)

To meet the growing demands for qualified medical practitioners in the mofussil and for the spread of medical education in the Presidency, as well as for the establishment of a fair-sized decent and well equipped hospital in the District town, the Bankura Sammilani Medical School was started by the Bankura Sammilani in 1922. It trains students for the Licentiate Examination of the State Medical Faculty of Bengal and is recognised by the Bengal Council of Medical Registration.

The preliminary education standard required for admission to the School is Matriculation or an equivalent examination of a recognised University. Students from all districts and provinces are treated alike for admission to this institution. No reservation of any kind obtains.

The number of applications received in 1935, 1936 and 1937 was 98, 62 and 54 respectively out of which 1 application each in 1936 and 1937 was received from candidates with I.Sc. qualifications.

It is compulsory for the failed students to attend all the lectures, demonstrations and practical classes in the subject or subjects concerned for a period from the publication of the result upto the Test Examination and no student is sent up for the Faculty Examination unless he passes in the Test Examination.

For purposes of practical classes students are divided into groups, each group consisting of 20 students. In Physiology, Pathology and Anatomy two groups work simultaneously while in Materia Medica, Chemistry and Physics only one group works at a time.

The Reading Room is under the charge of a teacher who is also the Secretary for the Common Room. It contains about 620 books and journals. There is no separate club for students but they participate in games of all kinds, particularly Foot-ball and Badminton.

#### THE CALCUTTA MEDICAL SCHOOL, CALCUTTA. (BENGAL).

It is a non-Government institution.

In 1923 the Calcutta Medical Institute, a Society registered under Act XXI of 1860, took over the management of the Calcutta Medical School and Hospital which was founded by late Dr. S. K. Mullick, under the name of the National Medical College of India. In 1924 the School was recognised temporarily up to the Intermediate standard and since 1926 it is affiliated up to the Final L.M.F. standard of the State Medical Faculty of Bengal. The hospital, which formerly contained only 50 beds, has been enlarged since 1933 to contain 150 beds to provide adequate facilities for hospital training to the students who had previously to attend various other hospitals in Calcutta for the purpose.

The preliminary education standard required for admission to the School is a pass at the Matriculation or an equivalent examination. Students are admitted from all provinces without distinction of caste or creed. There is no special reservation of any kind. The number of applications received during 1935, 1936 and 1937 was 257, 225 and 220 respectively out of which 67, 54 and 45 respectively were received from students with I.Sc. qualifications.

Failed students have to undergo a further course of training for six months in the subject or subjects concerned and also hospital training for 6 months in the case of senior students.

The maximum number of students working at a time in a practical class is 30.

There are two clubs. The one is Athletic Club which arranges for almost all indoor and outdoor games, while the other is Entertainment Club under which theatrical performances are organised. Students read books in the School Library.

During 1936-37 papers on (i) Anaemia in Pregnancy, (ii) Delay in Labour and (iii) Osteomalacia were published in the book of Midwifery 'An Introduction to the study of Midwifery, 1937' by Dr. J. C. Chatterjee.

#### NATIONAL MEDICAL INSTITUTE, CALCUTTA. (BENGAL).

It is a non-Government institution.

It was first started in 1921 with 500 students having a five years' college course but was ultimately reduced to the school standard of the State Medical Faculty of Bengal to which it was affiliated in 1927. It is in receipt of a grant from the Calcutta Municipal Corporation and got a grant of Rs. 4 lakhs from the Government of Bengal for the purchase of land, construction of buildings and equipment etc. The Indian National Congress and Late Mr. C. R. Das gave a great impetus and substantial help to found this Institution. The School as well as its attached

hospitals are controlled by a Society called the 'Bengal Council of Medical Education'.

Matriculation of a recognised University or its equivalent examination is the minimum education standard required for admission to the School. No restriction of any kind is imposed on the admission of students. The number of applicants during 1935, 1936 and 1937 was 187, 163 and 141 respectively out of which 11, 7 and 5 respectively were of Intermediate standard.

Failed students are governed by the Rules and Regulations of the State Medical Faculty of Bengal.

The maximum number of students working at a time in a practical class is 40.

Students' Common room is used as a Reading Room and for indoor games.

A paper on "Role of infection in the Aetiology of Infantile Cirrhosis of the Liver" and another on "Summer fever in Children" were published in the Indian Medical Gazette, Vol. LXXI, No. 6 in June 1936 and, "The Anti-septic" in March 1937 respectively.

#### MEDICAL SCHOOL, AGRA. (UNITED PROVINCES).

In 1854 Government proposed to establish a medical school attached to the Thomason Hospital, Agra, which was built in the same year, for the instruction of apprentices of Government dispensaries in vaccination work. Dr. John Murray, the then Civil Surgeon and subsequently the first Principal of the School, however, suggested a general scheme which was duly sanctioned, for the education of native doctors. Under this scheme the course of training was to run for three years. The subjects to be studied were Anatomy, Materia Medica, Chemistry, Botany, Medicine, Surgery and Midwifery. In 1855, 35 pupils were enrolled and were paid a maintenance allowance of Rs. 6 p.m. each. The first batch of 12 native doctors passed out of the school in 1857. The final examination was held once a year in April and students had to obtain 75 per cent. of the total marks in order to pass the examination. In 1865 it was decided that only those students who had done a year in the School dispensary or in a Regiment should be admitted. It was in 1878 that a civil hospital assistants class, as distinct from the military medical class, was formed for the first time. The number of students studying at the School rose to 193 men and 49 women in 1894. The School was affiliated to the United Provinces State Board of Medical Examinations in 1913, but with effect from the 15th November, 1926, State Medical Faculty has been instituted in place of the old United Provinces State Board of Medical Examinations. First Membership examination was held in 1929.

The stipendiary or indenture system was abolished in 1924 and since then all students are treated as private students and pay for their education at the school.

The preliminary education standard now required for admission is a pass at the High School Examination, with Chemistry and Physics, of the United



Provinces Board of Intermediate and High School Education or an equivalent or higher examination of a University of the United Provinces. The admission to the School is made by a competitive pre-medical test in Chemistry, Physics, English Composition and *Viva Voce*. No system of communal reservation obtains. Two candidates from Delhi Province can be admitted if they pass the pre-medical test.

The number of applications received during 1935, 1936 and 1937 was 120, 146 and 160 out of which 8, 25 and 33 applicants respectively had I.Sc. qualifications. In 1936 and 1937 four applications were received from candidates possessing B.Sc. qualifications.

No candidate is promoted to the next higher class unless he passes in all the subjects. Each unsuccessful candidate is given two chances to re-appear in the subjects in which he fails. If he fails in both the chances, he is required to re-appear in all the subjects subsequently.

The number of students working at a time in a practical class does not exceed 40.

No special courses exist for compounders or sanitary inspectors' classes.

There is a Students' Clinical Society which publishes a biannual journal named the "Clinical Society Journal". Meetings of the Society are held regularly when papers of clinical interest are contributed by members of the staff and students. The students' Reading Room subscribes to periodicals and daily newspapers.

12 Research papers were published by the staff during the year 1936-37.

#### WOMEN'S MEDICAL SCHOOL, AGRA. (UNITED PROVINCES).

Medical training for women students was first started in Agra in 1883 when 4 women students were admitted to the Agra Medical School. A Maternity Hospital for women was built in 1916 and the Women's Medical School and Hospital were completely separated from the Men's School in 1923. The School is financed by Government but it also receives assistance from the Central and Provincial Dufferin's Fund.

The preliminary education standard required for admission is a pass at the Matriculation or an equivalent examination. The number of applications received in 1935, 1936 and 1937 was 109, 99 and 120 respectively out of which 2 in 1935 and 1 in 1936 were from students with I Sc. qualifications.

No reservation of seats is made on any communal or other basis. Preference is given to students domiciled in the United Provinces.

Not more than 16 students on an average work together at a time in a practical class of Chemistry and 14 in a class of Physiology.

There is a Students' Club and a separate Reading Room

#### MEDICAL SCHOOL, AMRITSAR. (PUNJAB).

The School was started in Lahore in November, 1860 as a part of the Medical College there, with two classes of students (i) the English speaking class and (ii) the Hindustani speaking class which constituted the beginning of this school. In 1910 on the death of King Edward VII, it was

decided to perpetuate his memory in the Punjab by a King Edward Memorial in the form of a new King Edward Medical College and School which was formally opened by Lord Hardinge, the then Viceroy of India, in 1913. Owing to the steadily increasing number of students seeking admission to the combined institution and the need for providing requisite facilities and teaching material for students, the school was separated in 1920 and transferred to Amritsar, where it was at first accommodated in a small building. The School building now consists of three blocks—Administrative block, the main block and the Anatomy block. The Hostel buildings consist of two blocks, accommodating 320 students. It has a spacious play ground and a newly built swimming tank. *Pari passu* with these developments have grown the number of students and the standard of education. The standard of admission to the School at its commencement was very low, instruction being imparted in Urdu. Later the minimum qualifications required for admission were raised and the medium of instruction was changed into English in 1915. Co-education was started in 1933.

At present the minimum qualification required for admission is Matriculation of a recognised University.

The number of applications received in 1935, 1936 and 1937 was 353, 524 and 340 respectively. Out of these 13, 21 and 24 in 1935, 1936 and 1937 respectively were received from students possessing I.Sc. qualifications.

10 to 15 per cent. of the total vacancies are reserved for other administrations (North-West Frontier Province, Jammu and Kashmir and other Indian States), 2 seats are reserved for departmental candidates selected by the Inspector General of Civil Hospitals for L.S.M.F. class from amongst dispensers. The remaining seats, including 15 reserved for women candidates are open to Punjab students and are filled on a communal basis—40 per cent. by Mohammedans, 20 per cent. by Sikhs and 40 per cent. by others.

Selection is made strictly on merits provided the candidate is physically fit, physical fitness being determined by an examination and eye sight test conducted by the Principal assisted by the members of the staff. The age of the candidate must be between 16 and 21 years.

A candidate, who fails to pass, may be admitted to one or more subsequent examinations on payment of the examination fee on each occasion and on producing a certificate that the candidate has, since the date of last examination, received to the satisfaction of the Head of the School, further instruction in the subject or subjects in which the candidate has failed, not more than 12 months previously (provided that after four failures the candidate shall not be admitted to further examination), but this rule is not applicable to the students of the final year class.

On an average 35 to 40 students work at a time in a practical class.

Arrangements also exist for the training of Dispensers and Dressers. The period of training for the combined course is two years; separately the dispensers' course lasts for 18 months and dressers' course for 12 months. Classes for Nursing Probationers are also held.

There is a Students Union which runs a School Magazine and holds social and literary meetings of students. Reading Room subscribes to 19 publications. Library consists of 2833 volumes.

During 1936-37 a paper on Prognostic Significance of Icterus Index in Lobar Pneumonia was published and research work on Ankylostomiasis is being done in the Physiology Department. A Tuberculosis Enquiry with reference to the types of Tubercle Bacilli causing Surgical and abdominal tuberculosis in Amritsar is being conducted in the Pathology Department of the school. It is financed by the local Municipality.

#### THE LUDHIANA MEDICAL SCHOOL FOR MEN, LUDHIANA. (PUNJAB).

The existing accommodation at the Medical School, Amritsar, being found inadequate to cope with the pressing need and increasing demand for medical education in the Punjab, the late Dr. B. D. Soni, M.B., B.S., with the co-operation of some spirited public workers started this school on 11th June, 1934 and obtained recognition by the Punjab Medical Council on 23rd February, 1935. The School is at present recognised upto the III Year class. After the death of Dr. B. D. Soni, the Governing Body of the school, faced with financial difficulties, handed over the institution to the Managing Committee of the Arya High School, Ludhiana, which has now appointed a Managing Body for the control and management of the School.

The minimum educational qualification required of a candidate for admission to the school is Matriculation with Science as a special subject. Preference is given to F. Sc. students.

The number of applications received in 1935, 1936 and 1937 was 43, 43 and 46 respectively. 4, 5 and 2 applications in 1935, 1936 and 1937 respectively were received from students possessing F. Sc. qualifications.

Admission is made by a special committee appointed for this purpose. Students are called for personal interview and the best of the lot are selected. No seats are reserved for any community.

Every unsuccessful candidate is given four chances to reappear at an examination, and if he is even then unable to qualify he ceases to be the student of the school.

On an average 45 students work at a time in a practical class of Physics, Physiology, Histology and Anatomy and 25 in a class of Chemistry, Pathology and Pharmacy.

The general activities of the students are regulated by the students' union called the Ludhiana Medical School Union, under which there is a Sports' Committee. Reading Room subscribes to Medical Journals and other daily newspapers. Library consists of 200 books and a large number of old journals.

#### WOMEN'S CHRISTIAN MEDICAL COLLEGE, LUDHIANA. (PUNJAB).

The School was founded in 1894 by Dr. Edith Brown, D.B.E., M.A., M.D., starting with a class of 4 students. At present the number of students is 130. During the past forty-three years 333 students have

graduated. The expenditure has increased from Rs. 4,500 in the first year to approximately rupees 2 lakhs now.

Admission to the school is made on the basis of educational qualifications. I.Sc. and F.Sc. students are given preference to 1st division Matriculates with mathematics, and 2nd division Matriculation is the minimum qualification required for admission. The number of applications received in 1935, 1936 and 1937 was 100, 156 and 129 respectively. The number of students with I.Sc. qualifications admitted to the school in 1935 and 1937 was 1 and 4 respectively.

50 per cent. of the seats are reserved for the Punjab province and two seats for North-West Frontier Province, 1/3 being for non-Christians. Preference is given to Mohammedans on account of the difficulty they have to face in studying in Men's schools. Students are admitted on 3 months' probation and if their work is not upto the standard they are asked to leave the school after that period.

A failed candidate is given 3 chances to reappear in the examination. After that he is expected to leave the school.

The maximum number of students working at a time in practical classes is 20.

Arrangements exist for the training of Nurses, Midwives, Nurse-Dais and Indigenous Dais, and Lady compounders.

Students are divided into groups under the care of members of the staff. These groups compete in games. There is a Ranger Company in connection with the Girls Guides' Association. The students' Reading Room subscribes to a daily newspaper and other magazines.

#### ROBERTSON MEDICAL SCHOOL, NAGPUR. (CENTRAL PROVINCES).

It is a Government institution and was opened in July 1914 with a view to afford facilities for medical education to the residents of Central Provinces and Berar.

The minimum educational qualification required for admission to the school is matriculation for male students. There is a competitive entrance examination for all male candidates except graduates and State candidates. Candidates, in order of merit, from amongst the successful ones are selected for interview and if found suitable are admitted. Women applicants are called for interview after they have passed a test conducted by the Director of Public Instruction, Central Provinces, which is of the matriculation standard, and if found suitable are admitted. Admissions are limited to about 40 per annum, 20 per cent. of the vacancies being reserved for women candidates.

Applications received during 1935, 1936 and 1937 were 175, 235 and 223 respectively. 5, 11 and 20 candidates with I.Sc. qualifications applied in 1935, 1936 and 1937 respectively.

First and second year students are given 4 chances to reappear at the examination in which they fail. Afterwards their names are removed from the rolls of the school.

30 students on an average work at a time in a practical class.

Arrangements exist for the training of compounders in an annual nine months training class. Two months special training is given to compounders trained elsewhere who either do not hold the trained compounders' diploma or are sent by the Civil Surgeons for refreshing their knowledge.

Papers on (i) Some reflections on diagnosis and treatment of poisoning in general and (ii) Asthma, were published by a member of the staff during 1936-37.

#### DARBHANGA MEDICAL SCHOOL, LAHERIASERA (BHIAR).

It is a Government institution. The late Maharajadhiraj of Darbhanga had contributed five lakhs of rupees towards the scheme for raising the Temple Medical School to a Medical College at Patna and opening of a Medical School elsewhere, as it was not possible to house the Medical School and a Medical College together. Darbhanga was decided upon as the most suitable place for the Medical School, as it had 2 large Hospitals, one maintained by the Maharajadhiraj of Darbhanga and the other local Sadr Hospital, and the site for the Medical School was selected between the two hospitals. The foundation stone of the Medical School was laid by Sir Henry Wheeler in 1923.

On the establishment of the Medical College, Patna, the old Temple Medical School which was established in 1874 and opened by Sir Richard Temple, the then Governor of Bengal, was transferred to Darbhanga in August 1925 and designated as "Darbhanga Medical School".

The minimum qualification required for admission to the school is 2nd division Matriculation of Patna University or 1st division Matriculation of any other University. Admission is made in order of merit and best candidates are selected. No communal reservation obtains and no seats are reserved for women students.

The number of applications received in 1935, 1936 and 1937 was 208, 178 and 210 respectively. Out of these 10, 8 and 13 applications in 1935, 1936 and 1937 respectively were received from students possessing I.Sc., qualifications.

Only in first year if a student fails to pass his annual examination he is given chance to appear again after 6 months. If he fails to pass the Primary Board Examination even then, his name is struck off but he may seek admission as a fresh candidate.

20 students, on an average, work at a time in a practical class except in Anatomy where 80 students dissect bodies at a time.

There is a students' Library, Athletic Club, Dramatic Club and Students' Thrift Society. The School runs a Students' Magazine.

BERRY WHITE MEDICAL SCHOOL, DIBRUGARH. (ASSAM).

Formerly tea gardens used to employ Board passed compounders who, after a certain number of years' garden work, used to be examined by a Board consisting of the Civil Surgeon, Lakhimpur, and two European Medical Officers of the tea gardens. Dr. John Berry White, who was one of the members of the Board, thought that a higher standard of efficiency in these medical subordinates was necessary. He donated a sum of Rs. 50,000 with which the Berry White Medical School was started in 1900 for training Licentiates.

Matriculation is the minimum educational qualification required for admission to the school. Admission is made on a communal and territorial basis. With effect from the year 1937 two seats have been sanctioned by the Local Government for women candidates but no woman candidate applied for admission.

The number of applicants who applied for admission to the school in 1935, 1936 and 1937 was 138, 150 and 144 respectively. Out of these 10, 14 and 26 in 1935, 1936 and 1937 respectively possessed I.Sc. qualifications.

A first year student who fails at the school test examination shall automatically be removed from the rolls. He can obtain permission to have his name retained, but his retention will depend upon the report of the teachers with regard to his conduct, diligence and regularity of attendance. Second and third year students are given 4 chances to re-appear at the examination in which they fail. After the fourth failure their names are removed from the rolls of the school. A fourth year failed candidate is retained in the same class until he passes.

The number of students working at a time in a practical class is 30 to 50 in Anatomy and Chemistry and 10 to 16 in Physics, Pathology and Pharmacy.

Arrangements exist for the training of compounders. The period of training is 2 years. A Dhai class also exists in the School. The duration of the course of training for this class is 12 months.

The school has a separate Common Room which is used both as a Reading Room and a Club. The "Berry White Medical School Journal" is published quarterly by the staff and students but during 1936-37 only one issue was published.

ORISSA MEDICAL SCHOOL, CUTTACK. (ORISSA).

It is a Government institution and was established in 1875 under the auspices of Sir Richard Temple the then Lieut.-Governor of Bengal, Mr.

T. E. Ravenshaw, Commissioner of Orissa and Lieut.-Colonel W. D. Stewart, Civil Surgeon of Cuttack. The course of study was three years upto the end of 1895-96. From 1896-97 to 1898-99 only 3 students took up the 4th year course annually as bonded students on a stipend of Rs. 20 per month each on the condition that they would take up Government service on acquiring the necessary qualifications. The four years' course was regularly started from 1899-1900. Upto 1903-04 the students qualified themselves on the result of the oral examination only held by a Committee appointed by Government, but since 1904-05 the examinations were partly written and partly oral. The present system of examinations and licensing was introduced by the Bihar and Orissa Medical Examination Board in 1916-17.

Matriculation of a recognised University or any other examination recognised by Government as equivalent thereto is the minimum qualification required for admission to the school.

Admission of male candidates to the school is restricted to natives of the Province or persons domiciled therein—20 to 25 per cent. of the seats being allotted to the latter class. Concession is allowed to genuine Oriya students from Chhota Nagpur in Bihar provided seats are available after accommodating the natives and those domiciled in Orissa. Not more than 10 per cent. of the vacancies are allotted to students coming from other provinces. There is no provincial restriction for women students.

121, 109 and 124 applications were received in 1935, 1936 and 1937 with 4, 2 and 1 applications respectively from candidates having I.Sc. qualifications.

A first year student, who fails to obtain 33 per cent. marks in Physics and Chemistry at the sessional examinations, is promoted to the 2nd year class provisionally but is required to reappear in that subject at the next Primary examination of the Board, provided he passes in it at the sessional examination held just before the Board examination. Should he fail again, he is removed from the school. If he fails to obtain 40 per cent. marks either in Anatomy, Materia Medica or Physiology, he is provisionally promoted to the second year class and is re-examined in that subject after three months. Should he fail again in that subject he is dealt with as a new candidate. A second year student who fails to obtain 40 per cent. marks in any one subject at the sessional examination is allowed to appear at the Intermediate examination of the Board after six months provided he passes in the sessional examination held before the Board examination. A third year student who fails to secure 40 per cent. marks in any one subject is given two chances to reappear at the next sessional examination in that subject only. A fourth year student who fails to obtain 40 per cent. marks in the sessional examinations in not more than two subjects is detained for six months and allowed to

appear at the next Board examination, provided he passes in the seasonal examination held before the Board Examination.

The maximum number of students working at a time in a practical class is 100 in Anatomy, 20 in Pathology, 12 in Materia Medica and Practical Pharmacy and 23 in Physiology.

There is a compounders' training class which turns out on an average about 21 qualified compounders every year.

Gymnasium is provided for students in the school. There is a common room in the hostel. A School magazine is published by the staff and students.

#### MEDICAL SCHOOL, HYDERABAD. (SIND).

It is a Government institution.

At the suggestion of the Surgeon General with the Government of Bombay, in 1879, the Commissioner in Sind took steps for establishing a medical school in Hyderabad and a sum of Rs. 1,00,000 was raised by public subscription. The school was started with 20 students in 1881 as an experimental measure: provision was also made to admit 10 fresh candidates annually. Subsequently sanction was given for the maintenance of the School on a permanent basis. The School remained a local fund institution managed by a committee until 1928, when its management was taken over by Government.

The preliminary standard of education required for admission was Matriculation till June 1937 when it was raised to Intermediate Science examination. The number of applications received in 1935, 1936 and 1937 was 85, 63 and 13 respectively of which 5, 2 and 9 respectively were from students with I. Sc., qualifications. 25 per cent. of the total number of vacancies are reserved for Mohammedans, but no reservation is made for women, military medical pupils or students from other provinces. Students who fail to pass the 1st and 2nd L.C.P.S., examinations have to attend a full term before they are allowed to appear at the subsequent examination, but those failing at the final L.C.P.S. examination have to undergo four months' training at a recognised hospital before they are eligible to appear again at the said examination.

The number of students working at a time in a practical class in the 1st year does not exceed 16 in Chemistry and 10 in Physiology, and in 2nd year, 25 in dissections and 12 in Histology and Experimental Physiology. The number of students in 3rd and 4th years working at a time in the Pathology Department Laboratory is 4.

There is a students' club and a reading room.



## KING EDWARD HOSPITAL MEDICAL SCHOOL, INDORE. (CENTRAL INDIA).

It is a non-Government institution and was founded in 1878 as a result of the efforts of Dr. Beaumont, who enlisted the sympathy of Maharaja Tukoji Rao Holkar II. A beginning was made by admitting for training a few promising youths for employment in Holkar State. As the experiment proved successful, other States also joined in the movement, one of the earliest and most generous supporters being His Highness the Maharaja Scindia of Gwalior. During the last five years the average number of students admitted annually from States has been 37, the total number of fresh admissions being 69 every year. During 1936, 5 women students were admitted. The number of students on roll has not fallen below 300 during the last ten years.

Matriculation or an equivalent examination is the minimum educational qualification required for admission but preference is given to I.Sc. passed candidates and to those Matriculates who pass with Chemistry and Physics. Admissions are made on the result of an Entrance Examination held in English, General Knowledge and *Viva Voce*. Candidates other than 'nominees' are admitted in order of merit. Any party which makes an annual contribution to the King Edward Memorial Fund can nominate for admission to the School one candidate for each complete sum of Rs. 600 so contributed. In the case of minor States of Central India with an income of less than Rs. 6 lakhs, this contribution has been fixed at Rs. 100. It is essential for such nominees to pass the entrance examination.

The number of applications received during 1935, 1936 and 1937 was 153, 164 and 221, out of which 29, 27 and 36 respectively were received from candidates of Intermediate Science standard.

Failed candidates can appear at a subsequent examination only after they have attended a further course of training for full one term, in the subject or subjects concerned. Their attendance at the School must be at least 75 per cent. of the total lectures delivered.

The number of students working at a time in a practical class is 18 in Chemistry, Physics and Physiology, 24 in Biology, Anatomy and Pharmacy and 36 in Pathology.

Arrangements exist for the training of compounders. Admission to this class has been restricted to residents of Central India and Rajputana. About 106 compounders in various grades are trained every year.

A sum of Rs. 16 per student per annum is credited to "Students Union Fund" which finances the arrangements for various outdoor and indoor games. From this fund are paid the expenses of the Annual Social

Gatherings and the Annual Sports. There is also a Reading Room furnished with newspapers and periodicals. Students take part in the management of the affairs of the Union. There is also an Amateur Dramatic Society, whose profits are paid to the Hospital Charity Fund.

#### 9. STATISTICS.

Statistical and other information regarding Medical Schools is given in the following tables.

**MEDICAL  
TABLE**

School.	Diplomas granted.	Examining Body.	Admissions for 1937-38.		Total number of students during 1937-38.		Number of students qualified in 1936-37.	
			M.	W.	M.	W.	M.	W.
	1	2	3	4	5	6	7	8
<i>Government.</i>								
1. Stanley Medical School, Madras.	L. M. P.	Board of Examiners, Madras.	66	...	334	...	71	...
2. Lady Willingdon Medical School for Women, Madras.	L. M. P.	-do-	...	18	...	86	...	18
3. B. J. Medical School, Poona	L. C. P. & S.	College of Physicians & Surgeons, Bombay.	29	6	271	71	32	1
4. B. J. Medical School, Ahmedabad.	L. C. P. & S.	-do-	46	2	267	19	20	...
5. Campbell Medical School, Calcutta.	L. M. F.	State Medical Faculty of Bengal.	147	16	506	38	78	5
6. Medical School, Dacca	L. M. F.	-do-	99	3	425	15	55	2
7. Lytton Medical School, Mymensingh.	L. M. F.	-do-	54	...	220	...	19	...
8. Ronaldshay Medical School, Burdwan.	L. M. F.	-do-	69	...	217	...	34	...
9. Chittagong Medical School, Chittagong.	L. M. F.	-do-	65	...	207	...	14	...
10. Jackson Medical School, Jalpaiguri.	L. M. F.	-do-	25	...	131	...	32	...
11. Medical School, Agra	L. S. M. F., M. S. M. F.	U. P. State Medical Faculty.	50	...	279	3	45	1
12. Women's Medical School, Agra	L. S. M. F.	-do-	...	21	...	97	...	14
13. Medical School, Amritsar	L. S. M. F.	The Punjab State Medical Faculty.	88	15	459	65	58	3
14. Robertson Medical School, Nagpur.	L. M. P.	C. P. Medical Examination Board.	37	5	196	41	33	4
15. Darbhanga Medical School, Laheriasarai.	L. M. P.	B. & O. Medical Examination Board.	44	...	213	...	44	...
16. Berry White Medical School, Dibrugarh.	L. M. P.	The Assam Medical Examination Board.	54	...	200	...	31	...
17. Orissa Medical School, Cuttack.	L. M. P.	B. & O. Medical Examination Board.	40	5	157	21	31	1

'M' denotes 'Men' and 'W' denotes 'Women.'

NOTE.—Beds for mental

## SCHOOLS.

## A.

Number of Hospital beds available for teaching purposes.									Attached Hospitals.
Surgical.	Medical.	Gynaecology.	Obstetrics.	Ophthalmic.	Ear, Nose & Throat.	Children.	Others.	Total.	
9	10	11	12	13	14	15	16	17	18
211	267	10*	75	35	4	57*	42	634	<ol style="list-style-type: none"> <li>1. Govt. Royapuram Hospital.</li> <li>2. Ramaswamy's Living-in-Hospital.</li> <li>3. Govt. T. R. Hospital.</li> <li>4. Mental Hospital.</li> <li>5. Infectious Diseases Hospital.</li> <li>6. Vaccination Department.</li> </ol>
30	35	25	79	170	9	52	195	595	<ol style="list-style-type: none"> <li>1. Victoria Caste and Gosha Hospital</li> <li>2. Royapettah Hospital.</li> <li>3. Government General Hospital.</li> <li>4. Tuberculosis Hospital.</li> <li>5. Infectious Diseases Hospital.</li> </ol>
103	71	10	35	...	...	21	60	300	Sassoon Hospitals, Poona.
107	84	4	25	60	4	6	...	290	H. & P. Civil Hospital, Ahmedabad.
197	419	23	22	28	...	16	12	717	Campbell Hospital.
83	104	( 28 )		46	*	...	...	261	Mitford Hospital, Dacca.
38	30	12	12	10	...	...	22	124	Surya Kanta Hospital.
58	60	10	10	12	*	...	...	150	Fraser Hospital.
42	50	6	7	8	3	...	...	116	Chittagong General Hospital.
31	40	8	2	10	...	...	10	101	General Hospital, Jalpaiguri.
104	86	10	10	56	...	...	...	266	Thomason Hospital.
38	33	20	20	...	...	30	...	146	Maternity Hospital.
122	62	48	1	( 43 )	...	...	12	293	Civil Hospital, Amritsar.
96	73	18	6	12	3	8	6	222	Mayo Hospital, Nagpur.
74	91	4	9	18	6	...	...	202	Darbhanga Medical School Hospital.
26	39	( 12 )		...	...	...	52	129	Dibrugarh Hospital.
82	45	( 10 )		8	*	4	66	215	General Hospital, Cuttack.

\*Included in surgical and medical.  
diseases are not included.

## MEDICAL

## TABLE

School.	Diplomas granted.	Examining Body.	Admissions for 1937-38.		Total number of students during 1937-38.		Number of students qualified in 1936-37.	
			M. 3	W. 4	M. 5	W. 6	M. 7	W. 8
Government—contd.								
18. Medical School, Hyderabad (Sind).	L. C. P. & S.	College of Physicians & Surgeons Bombay.	9	...	98	14	17	1
Non-Government.								
19. Missionary Medical School for Women, Vellore.	L. M. P.	Board of Ex- aminers Madras.	...	22	...	63	...	22
20. Miraj Christian Medical School, Miraj.	L. C. P. & S.	College of Physicians & Surgeons Bombay.	...	...	46	1	15	...
21. National Medical College, Bom- bay.	L. C. P. & S.	College of Physicians & Surgeons Bombay.	46	4	232	43	23	2
22. The Bankura Sammilani Medi- cal School, Bankura.	L. M. F.	State Medical Faculty of Bengal.	32	...	197	...	30	...
23. Calcutta Medical School, Cal- cutta.	L. M. F.	-do-	99	1	400	3	59	...
24. National Medical Institute, Cal- cutta.	L. M. F.	-do-	83	1	389	2	50	2
25. Women's Christian Medical College, Ludhiana.	L. S. M. F.	The Punjab State Medi- cal Faculty.	...	35	...	130	...	23
26. The Ludhiana Medical School for Men, Ludhiana.	(No final class has yet passed out of the School).		28	...	68	...	...	...
27. King Edward Hospital Medical School, Indore.	L. M. P.	C. P. Medical Examination Board.	66	6	261	8	69	1
	L. M. F.	State Medical Faculty of Bengal.						
	L. C. P. & S.	College of Physicians & Surgeons, Bombay.						

M. denotes 'Men' and 'W' denotes 'Women.'

## SCHOOLS.

A.—*contd.*

Number of Hospital beds available for teaching purposes.									Attached Hospitals.
Surgical.	Medical.	Gynaecology.	Obstetrics.	Ophthalmic.	Ear, Nose & Throat.	Children.	Others.	Total.	
9	10	11	12	13	14	15	16	17	18
74	32	( 30 )		8	...	...	4	148	Civil Hospital, Hyderabad.
34	43	35	58	17	15	36	14	252	Missionary Medical School Hospital, Vellore.
110	200	20	15	30	10	20	15	420	{ 1. A. P. Mission Hospital. 2. Wanless Tuberculosis Sanatorium.
24	27	10	6	2	2	10	...	81	{ 1. The Bai Yammabai L. Nair Charitable Hospital. 2. Municipal Maternity Homes, when necessary. 3. City Fever Hospital. 4. Municipal Vacc. Dept.
31	30	6	5	6	...	...	26	104	{ 1. Sammilani Medical School Hospital. 2. Sadar Hospital.
50	52	( 30 )		10	...	...	24	166	Calcutta Medical School Hospital.
39	109	14	16	5	5	...	52	240	{ 1. Chittaranjan Hospital. 2. National Infirmary.
40	60	60	35	12	6	27	20	260	Memorial Hospital.
18	18	4	...	...	10	...	...	50	Ludhiana Medical School Charitable Hospital.
34	36	17	16	28	18	13	36	198	King Edward Hospital.

Note.—Beds for mental diseases are not included.

# MEDICAL SCHOOLS

## TABLE B.

School.	Hostel Accommodation.						Teaching Staff.										
	Accommodation available for students.		Monthly rent payable by each student.		Cost of messing per month per student.		Lecturers.			Assistant Professors & Demonstrators.			Non-Medical etcetera.				
							I. M. S.	P. M. S.	Others.	M. B. B. S. grade.	Sub-Assist. Surgeon grade.	Others.					
	M.	W.	M.	W.	M.	W.											
<i>Government.</i>																	
1. Stanley Medical School, Madras	284	...	Rs. A. 3 0	Rs. ...	Rs. 12-8 to 13-8	Rs. ...	1	10	...	4	...	2	...	...	11	...	6
2. Lady Willington Medical School for Women, Madras.	...	70	...	3	...	13	14	8	...	...	...	...	...	4	...	...	3
3. B. J. Medical School, Poona	80	...	3 2	...	*	*	1	2	...	7	...	...	...	4	...	...	...
4. B. J. Medical School, Ahmedabad.	80	3	3 2	Free	15 0	15	1	6	3	4	...	...	...	4	...	...	2
5. Campbell Medical School, Calcutta.	...	28	...	Free	...	8	1	10	...	2	...	...	...	12	...	...	1
6. Medical School, Dacca	...	20	...	Free	...	8	1	8	...	...	...	...	...	10	...	...	...
7. Lytton Medical School, Mysore.	...	...	...	...	...	...	1	5	...	2	...	...	...	5	...	...	...
8. Ronaldshay Medical School, Burdwan.	100	...	4 0	...	10 to 11	...	...	6	...	...	...	...	...	6	5	9	...
9. Chittagong Medical School, Chittagong.	...	...	...	...	...	...	1	5	...	...	...	...	...	5	...	...	...
10. Jackson Medical School, Jalpaiguri.	...	...	...	...	...	...	...	6	...	...	...	...	...	6	...	...	...
11. Medical School, Agra	202	...	1 0	...	10	...	2	9	3	...	1	...	...	7	...	...	1
12. Women's Medical School, Agra.	...	80	...	...	...	11	4	...	2	...	...	...	...	...	...	...	1
13. Medical School, Amritsar	320	50	5 0	10	8 to 9	15	34	6	15	...	...	...	...	...	...	...	1

14. Robertson Medical School, Nagpur.	150	14	2 0	2	12	12	...	8	3	1	...	...	...	4	3	...	...
15. Darbhanga Medical School, Laherisahal.	176	...	8 4 to 11 4 (Half yearly)	...	12	12	...	6	...	...	...	...	...	5	...	...	...
16. Berry White Medical School, Dibrugarh.	200	...	0 4	...	12	12	...	5	...	...	...	...	...	5	...	...	...
17. Orissa Medical School, Cuttack.	148	18	2 6 to 2 14	Free	10	8	1	...	...	6	...	...	...	5	...	...	...
18. Medical School, Hyderabad (Sinj.).	44	...	3 12	...	16 to 20	...	1	8	2	2	...	...	...	...	3	1	...
<i>Non-Government.</i>																	
19. Missionary Medical School for Women, Vellore.	...	100	...	...	...	12	...	...	8	...	...	1	...	...	2	4	...
20. Miral Christian Medical School, Miraj.	46	...	1 0	...	15	...	...	...	11	...	...	...	...	...	1	...	...
21. National Medical College, Bombay.	40	...	8 to 10	...	No mess- ing ar- range- ment.	...	...	...	...	9	...	7	...	...	3	...	...
22. The Bankura Sammilani Medical School, Bankura.	160	...	2 0	...	10	...	...	13	13	...	...	...	...	4	4	2	...
23. Calcutta Medical School, Calcutta.	No School Hosted. There are several nesses very near to the School under the super- vision of the School authorities.	...	...	...	...	...	...	...	6	1	...	6	1	...	7	1	3
24. National Medical Institute Calcutta.	...	...	...	...	...	...	...	...	...	20	...	12	1	...	7	...	...
25. Women's Christian Medical College, Ludhiana.	...	130	...	13 8	...	14	...	...	14	...	...	...	...	...	13	2	...
26. The Indhiana Medical School for Men, Ludhiana.	35	...	4 0	...	9	...	...	2	8	...	...	2	...	...	2	2	...
27. King Edward Hospital Medical School, Indore.	226	8	College fee in- cludes Hostel rent.	...	15	15	1	1	9	...	...	2	...	...	4	4	...

\* 'M' denotes 'Men'.  
\* 'W' denotes 'Women'.

\* Men students manage their own messing and women students arrange with Seva Sadan at Rs. 25 p.m.  
\* These personnel belong to the Women's Medical Service.  
\* Out of these 3 two are part-time.  
\* Part-time.



# MEDICAL

## Table

School.	Receipts for 1936-37.					
	Government Grant. 1	Grants from other public bodies. 2	Income from endow- ments. 3	Fees from students. 4	Income from other sources. 5	Total expenditure for 1936-37. 6
<i>Government.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Stanley Medical School, Madras.	76,600	...	...	25,783	...	1,02,383
2. Lady Willingdon Medical School for Women, Madras.	Government meets the whole expenses.	...	...	1,231	4,405	71,452
3. B. J. Medical School, Poona	66,672	...	...	29,500	2,550	64,867
4. B. J. Medical School, Ahmedabad	20,565	...	3,415	33,253	60	57,293
5. Campbell Medical School, Calcutta.	1,01,489	1,860	1,483	50,377	2,087	1,57,296
6. Medical School, Dacca	41,351	...	...	41,377	5,161	87,890
7. Lytton Medical School, Mymensingh.	17,332	1,515	...	18,379	7,100	44,326
8. Ronaldshay Medical School, Burdwan.	29,105	...	...	17,437	5,393	51,995
9. Chittagong Medical School, Chittagong.	12,998	...	5,177	16,875	861	35,911
10. Jackson Medical School, Jalpaiguri.	12,091	...	8,505	13,445	913	34,954
11. Medical School, Agra	1,18,205	...	11	10,067	2,946	1,31,218
12. Women's Medical School, Agra	43,878	...	213	...	...	44,091
13. Medical School, Amritsar	1,00,582	...	...	46,847	170	1,47,599
14. Robertson Medical School, Nagpur.	92,348	...	...	21,900	...	65,750
15. Darbhanga Medical School, Laheriasera.	59,160	2,969	306	11,586	...	73,741
16. Berry White Medical School, Dibrugarh.	73,549	...	...	7,450	2,692	69,059
17. Orissa Medical School, Cuttack.	65,137	150	713	4,608	4,504	75,112
18. Medical School Hyderabad (Sard)	53,203	...	100	13,309	1,605	53,203
<i>Non-Government.</i>						
19. Missionary Medical School for Women, Vellore.	...	982	4,000	5,583	42,756	53,322
20. Miraj Christian Medical School, Miraj.	...	...	...	3,943	26,762	30,705
21. National Medical College, Bombay.	...	...	...	31,400	1,575	25,900
22. Bankura Sammlani Medical School, Bankura.	...	2,325	...	32,096	19,868	48,055
23. Calcutta Medical School, Calcutta.	...	...	...	51,901	11,365	61,825
24. National Medical Institute, Calcutta.	...	400	...	65,273	8,487	60,278
25. Women's Christian Medical College, Ludhiana.	84,450	19,390	...	15,968	90,806	2,10,614
26. The Ludhiana Medical School for Men, Ludhiana.	...	...	3,753	6,254	1,608	22,923
27. King Edward Hospital Medical School, Indore.	...	18,988	...	53,729	2,629	68,986

\* Government grant to the extent of Rs. 5,930-10-8 is expected.

## SCHOOLS.

C.

Expenditure for 1936-37. on Library.		Annual charges for each foreign student.		Total amount of fees charged from students for the whole medic course.		Scholarships or Freeships awarded.		
Staff.	Students.					No.	Amount.	
7	8	M	W.	M.	W.	13	M.	W.
9	10	11	12	13	14	15		
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.
( 2,352 )		500	...	450	...	...	5,364	...
( 468 )		...	100	1,000(a)	...	...	...	10,320
...	...	...	...	400	200	108	2,400	2,430
146	400	...	...	400	200	...	1,340	427
( 246 )		660	660	(b)600	(b)300	96	8,496	4,800
				570	554			
( 247 )		...	...	480	Day scho-	64	5,184	4,680
	6	...	...	480	lars free.	36	4,176	...
( 195 )		480	...	480	...	30	6,576	...
( 200 )		...	...	480	...	32	3,328	...
( 199 )		...	...	485	...	21	2,312	...
( 600 )		500	...	120	...	12	600	...
100	...	...	...	...	Free	34	...	16-18 p.m. each.
288	2,000	300	300	450	402	6	1,140	...
( 618 )		146	146	370	370	26	4,050	...
1,000	209	...	...	144	...	48	4,428	...
( 1,054 )		...	...	192	...	60	approxi- mately. 5,560	...
( 1,193 )		849	927	161	12	51	2,196	930
( 50 )		100	50*	400	Free	16	No tuition fee. 3,210	No tuition fee. 240
( 272 )		...	...	...	720	...	...	5,325
300	200	...	...	350	...	7	2,100	...
52	1,000	...	...	745†	745†	...	384	...
53	79	...	...	520	...	4	480	...
240	488	...	...	600	600	26	1,318	...
( 962 )		...	...	753	...	6	Half Freeship	...
1,350	768	...	500	...	1,200	4	Freeships.	14,000
...	189	...	...	960	...	143	...	...
( 100 )		...	...	896	896	...	...	...

\*Paid by Government.

† A fee of Rs. 45 is charged extra once in the whole course and is paid to the Bombay Municipality for giving instructions in infectious diseases, vaccination and for attending maternity cases.

‡ From individual donors at Home and abroad.

( ) Combined expenditure on Library for Staff and Students.

(a) From students not belonging to Madras Presidency.

(b) From students coming from Native States.

## MEDICAL SCHOOLS.

TABLE D.

## Chemistry.

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>GOVERNMENT.</b>				
1. Stanley Medical School, Madras.	40	1.	1	3
2. Lady Willingdon Medical School for Women, Madras.	30	1	..	1
3. B. J. Medical School, Poona.	Science Department closed from June 1937.			
4. B. J. Medical School, Ahmedabad.	29	1	1	1*
5. Campbell Medical School, Calcutta.	183	1†	1†	1*
6. Medical School, Dacca	130	* Taught by the Science Staff of the Dacca University on an honorarium of Rs. 1,500 where they make their own arrangements.		
7. Lytton Medical School, Mysensingh.	76	1	1	..
8. Ronaldshay Medical School, Birdwan.	84	1*	1*	1*
9. Chittagong Medical School, Chittagong.	This subject is taught at the Chittagong Government College.			
10. Jackson Medical School, Jalpaiguri.	39	1*	1*	1*
11. Medical School, Agra.	30	1	..	..
12. Women's Medical School, Agra.	33	1*	..	..
13. Medical School, Amritsar	82	1*	1*	2*
14. Robertson Medical School, Nagpur.	39	1*	1*	1*
15. Darbhanga Medical School, Laheriasarai.	46	1†	1*	2†
16. Berry White Medical School, Dibrugarh.	63	1*	1*	13§

\* Both for Chemistry and Physics.

† Both for Chemistry and Physics (Part-time).

‡ For three subjects—Chemistry, Physics, and Physiology.

§ Total number of inferior servants for all the Departments.

Chemistry—*contd.*

School.	Average number of students.	*Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>GOVERNMENT—contd.</b>				
17. Orissa Medical School, Cuttack.	44	1*	1*	2*
18. Medical School, Hyderabad (Sind).	1	1†	1†	1‡
<b>NON-GOVERNMENT.</b>				
19. Missionary Medical School for Women, Vellore.	16	1	..	1
20. Miraj Christian Medical School, Miraj.	..	..	..	..
21. National Medical College, Bombay.	..	..	..	..
22. Bankura Sammilani Medical School, Bankura.	37	1	..	1
23. Calcutta Medical School, Calcutta.	100	1	1§	..
24. National Medical Institute, Calcutta.	91	1	1§	1§
25. Women's Christian Medical College, Ludhiana.	35	1	1	1
26. The Ludhiana Medical School for Men, Ludhiana.	28	1	1	1
27. King Edward Hospital Medical School, Indore.	54	1	1§	1§

\*For three subjects—Chemistry, Physics and Physiology.

† For Chemistry, Physics and Biology.

‡ For Chemistry and Biology.

§ Both for Chemistry and Physics.

**MEDICAL SCHOOLS.**  
**TABLE D.—*contd.***  
**Physics.**

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
1	2	3	4	
<b>GOVERNMENT.</b>				
1. Stanley Medical School, Madras.	40	1	1	1
2. Lady Willingdon Medical School for Women, Madras.	30	1	..	1
3. B. J. Medical School, Poona.	..	..	..	..
4. B. J. Medical School, Ahmedabad.	29	1	1	1*
5. Campbell Medical School, Calcutta.	183	1†	1†	1*
6. Medical School, Dacca	130	* Taught by the Science Staff of the Dacca University on an honorarium of Rs. 1,500 where they make their own arrangements.		
7. Lytton Medical School, My-mensingh.	76	1	1	..
8. Ronaldshay Medical School, Burdwan.	84	1*	1*	1*
9. Chittagong Medical School, Chittagong.	This subject is taught at the Chittagong Government College.			
10. Jackson Medical School, Jalpaiguri.	39	1*	1*	1*
11. Medical School, Agra.	..	..	..	..
12. Women's Medical School, Agra.	33	1*	..	..
13. Medical School, Amritsar	82	1*	1*	2*
14. Robertson Medical School, Nagpur.	39	1*	1*	1*
15. Darbhanga Medical School, Laheriasarai.	46	1†	1*	2†
16. Berry White Medical School, Dibrugarh.	63	1*	1*	13‡

\* Both for Chemistry and Physics.

† Both for Chemistry and Physics (Part-time).

‡ For three subjects—Chemistry, Physics and Physiology.

§ Total number of inferior servants for all the Departments.

Physics—*contd.*

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>GOVERNMENT—<i>contd.</i></b>				
17. Orissa Medical School, Cuttack.	44	1*	1*	2*
18. Medical School, Hyderabad (Sind).	1	1†	1†	1
<b>NON-GOVERNMENT.</b>				
19. Missionary Medical School for Women, Vellore.	17	1	..	2
20. Miraj Christian Medical School, Miraj.	..	..	..	..
21. National Medical College, Bombay.	..	..	..	..
22. Bankura Sammilani Medical School, Bankura.	37	1	..	1
23. Calcutta Medical School, Calcutta.	100	1	1†	..
24. National Medical Institute, Calcutta.	91	1	1†	1†
25. Women's Christian Medical College, Ludhiana.	35	1	1	1
26. The Ludhiana Medical School for Men, Ludhiana.	28	1	1	1
27. King Edward Hospital Medical School, Indore.	54	1	1†	1†

\* For three subjects—Chemistry, Physics and Physiology.

† For Chemistry, Physics and Biology.

‡ Both for Chemistry and Physics.

## MEDICAL SCHOOLS.

TABLE D.—*contd.*

Biology.

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
GOVERNMENT.				
1. Stanley Medical School, Madras.	40	1	1	1
2. Lady Willingdon Medical School for Women, Madras.	30	1*	1*	1*
3. B. J. Medical School, Poona.	..	..	..	..
4. B. J. Medical School, Ahmedabad.	29	1	..	1
5. Campbell Medical School, Calcutta.	..	..	..	..
6. Medical School, Dacca	..	..	..	..
7. Lytton Medical School, My- mensingh.	..	..	..	..
8. Ronaldshay Medical School, Burdwan.	..	..	..	..
9. Chittagong Medical School, Chittagong.	..	..	..	..
10. Jackson Medical School, Jalpaiguri.	..	..	..	..
11. Medical School, Agra.	..	..	..	..
12. Women's Medical School, Agra.	..	..	..	..
13. Medical School, Amritsar	..	..	..	..
14. Robertson Medical School, Nagpur.	41	1*	1*	1*
15. Darbhanga Medical School, Lahori-aserai.	..	..	..	..
16. Berry White Medical School, Dibrugarh.	..	..	..	..
17. Orissa Medical School, Cuttaek.	..	..	..	..
18. Medical School, Hyderabad (Sind).	1	1†	1†	1‡

\* Both for Biology and Physiology.

† For Chemistry, Physics and Biology.

‡ For Chemistry and Biology.

Biology,—*contd.*

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>NON-GOVERNMENT.</b>				
19. Missionary Medical School for Women, Vellore.	17	1	..	2
20. Miraj Christian Medical School, Miraj.	..	..	..	..
21. National Medical College, Bombay.	..	..	..	..
22. Bankura Sammilani Medical School, Bankura.	..	..	..	..
23. Calcutta Medical School, Calcutta.	..	..	..	..
24. National Medical Institute, Calcutta.	..	..	..	..
25. Women's Christian Medical College, Ludhiana.	..	..	..	..
26. The Ludhiana Medical School for Men, Ludhiana.	..	..	..	..
27. King Edward Hospital Medical School, Indore.	52	1	1	1*

\* For Chemistry, Physics and Biology.



**MEDICAL SCHOOLS.**  
**TABLE D.—*contd.***  
**Pharmacy {Materia-Medica}.**

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>GOVERNMENT.</b>				
1. Stanley Medical School, Madras.	40	1	1	1
2. Lady Willingdon Medical School for Women, Madras.	19	1	..	1
3. B. J. Medical School, Poona.	175	1	..	1
4. B. J. Medical School, Ahmedabad.	143	1	1	..
5. Campbell Medical School, Calcutta.	302	1	2 part time.	3
6. Medical School, Dacca	88	1	1	1
7. Lytton Medical School, My- mensingh.	140	1	1	1
8. Ronaldshay Medical School, Burdwan.	135	1	1	1 part time.
9. Chittagong Medical School, Chittagong.	131	1	1	1 part time.
10. Jackson Medical School, Jalpaiguri.	57	1	1	1
11. Medical School, Agra.	125	1	..	2
12. Women's Medical School, Agra.	27	1	1	..
13. Medical School, Amritsar	120	1	2	1
14. Robertson Medical School, Nagpur.	115	1	..	1
15. Darbhanga Medical School, Laheriasarai.	102	1	1	1
16. Berry White Medical School, Dibrugarh.	104	Same as for Chemistry.		13*
17. Orissa Medical School, Cuttack.	95	1	..	..
18. Medical School, Hyderabad (Sind).	51	1	..	1

\* Total for all the Departments.

Pharmacy (Materia-Medica).—*contd.*

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>NON-GOVERNMENT.</b>				
19. Missionary Medical School for Women, Vellore.	10	1	..	1
20. Miraj Christian Medical School, Miraj.	28	1	1	1
21. National Medical College, Bombay.	152	1	1	2
22. Bankura Sammilani Medical School, Bankura.	96	1	1	1
23. Calcutta Medical School, Calcutta.	182	1	2	1
24. National Medical Institute, Calcutta.	207	2	2	1
25. Women's Christian Medical College, Ludhiana.	38	1	2	..
26. The Ludhiana Medical School for Men, Ludhiana.	25	1	1	1
27. King Edward Hospital Medical School, Indore.	84	1	1	1 for both Anatomy & Pharmacy.

## MEDICAL SCHOOLS.

TABLE D.—*contd.*

## Anatomy.

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>GOVERNMENT.</b>				
1. Stanley Medical School, Madras.	60	1	4	6
2. Lady Willingdon Medical School for Women, Madras.	53	1	1	2
3. B. J. Medical School, Poona	175	1	1	2
4. P. J. Medical School, Ahmedabad.	143	1	1	2
5. Campbell Medical School, Calcutta.	321	1	5	6
6. Medical School, Dacca	103	1	4	4 (a)
7. Lytton Medical School, Mysmensingh.	140	1	2	3
8. Ronaldshay Medical School, Burdwan.	139	1	2	5
9. Chittagong Medical School, Chittagong.	136	1	2	4
10. Jackson Medical School, Jalpaiguri.	59	1	2	2
11. Medical School, Agra.	125	1	2	6
12. Women's Medical School, Agra.	60	1*	1*	1 part time.
13. Medical School, Amritsar	242	1	4	8
14. Robertson Medical School, Nagpur.	114	1	2	4
15. Darbhanga Medical School, Laheriasarai.	102	1	2	4
16. Berry White Medical School, Dibrugarh.	101	1	2	13†
17. Orissa Medical School, Cuttack.	91	1	2	3
18. Medical School, Hyderabad (Sind).	51	1*	1	3

\* Both for Anatomy and Physiology.

† Total for all the Departments.

(a) Besides these extra hands are occasionally engaged.

Anatomy—*contd.*

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.
		Lecturers.	Assistant Lecturers.	
	1	2	3	4
<b>NON-GOVERNMENT.</b>				
19. Missionary Medical School for Women, Vellore.	15	1	1	2
20. Miraj Christian Medical School, Miraj.	28	1	..	1
21. National Medical College, Bombay.	152	2	1	2
22. Bankura Sammilani Medical School, Bankura.	101	2	2	2
23. Calcutta Medical School, Calcutta.	186	1	4	6*
24. National Medical Institute, Calcutta.	207	2	5	6
25. Women's Christian Medical College, Ludhiana.	74	1	2	2
26. The Ludhiana Medical School for Men, Ludhiana.	53	1	2	1
27. King Edward Hospital Medical School, Indore.	133	1	2	2 Of these 1 for both Anatomy & Pharmacy.

\* Out of these 3 are employed for 6 months.

## MEDICAL SCHOOLS.

TABLE D.—*contd.*

## Physiology.

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.	No. of microscopes available for teaching.
		Lecturers.	Assistant Lecturers.		
	1	2	3	4	5
<b>GOVERNMENT.</b>					
1. Stanley Medical School, Madras.	40	1	2	4	88
2. Lady Willingdon Medical School for Women, Madras.	53	1*	1*	1*	26
3. B. J. Medical School, Poona.	175	1	1	1	45
4. B. J. Medical School, Ahmedabad.	143	1	1	1†	16
5. Campbell Medical School, Calcutta.	300	1	3	5	33
6. Medical School, Dacca .	86	1	2	1	47
7. Lytton Medical School, Mymensingh.	140	1	1	1	14
8. Ronaldshay Medical School, Burdwan.	135	1‡	1	1	17
9. Chittagong Medical School, Chittagong.	127	1	1	..	29‡
10. Jackson Medical School, Jalpaiguri.	57	1	1	1	13
11. Medical School, Agra .	125	1	1	3	41
12. Women's Medical School, Agra.	60	1§	1§	..	9
13. Medical School, Amritsar	241	1	2	1	31
14. Robertson Medical School, Nagpur.	115	1*	1*	1*	26*
15. Darbhanga Medical School, Laheriasera.	102	Same as for Chemistry.		2	20

\* Both for Physiology and Biology.

† The services of one of the servants of the Anatomy Department are utilised.

‡ Both for Physiology and Pathology.

§ Both for Physiology and Anatomy.

|| For Chemistry, Physics and Physiology.

Physiology—*contd.*

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.	No. of microscopes available for teaching.
		Lecturers.	Assistant Lecturers.		
	1	2	3	4	5
<b>GOVERNMENT—<i>contd.</i></b>					
16. Berry White Medical School, Dibrugarh.	90	1	2	13¶	7
17. Orissa Medical School, Cuttack.	92	1*	1*	2*	21
18. Medical School, Hyderabad (Sind).	51	1†	1	2	17‡
<b>NON-GOVERNMENT.</b>					
19. Missionary Medical School for Women, Vellore.	13*	1	..	2	20
20. Miraj Christian Medical School, Miraj.	28	1	..	1	11
21. National Medical College, Bombay.	152	1	1	3	18§
22. Bankura Sammilani Medical School, Bankura.	95	2	1	1	16
23. Calcutta Medical School, Calcutta.	180	1	3	1	16
24. National Medical Institute, Calcutta.	207	1	3	1	18
25. Women's Christian Medical College, Ludhiana.	74	2	3	1	42
26. The Ludhiana Medical School for Men, Ludhiana.	53	1	1	1	8
27. King Edward Hospital Medical School, Indore.	134	1	1	1	21

\* For Chemistry, Physics and Physiology.

† Both for Physiology and Anatomy.

‡ Both for Physiology and Biology.

§ Total for Physiology, Pathology and Biology.

|| Both for Physiology and Pathology.

¶ Total for all Departments.

## MEDICAL SCHOOLS.

TABLE D.—*contd.*

## Pathology.

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.	No of microscopes available for teaching.
		Lecturers.	Assistant Lecturers.		
	1	2	3	4	5
<b>GOVERNMENT.</b>					
1. Stanley Medical School, Madras.	40	1	3	4	1 for each student.
2. Lady Willingdon Medical School for Women, Madras.	19	1	1	1	19
3. B. J. Medical School, Poona.	58	1	1	3	38
4. B. J. Medical School, Ahmedabad.	85	1	1	1	9
5. Campbell Medical School, Calcutta.	212	1	3	3	31
6. Medical School, Dacca	142	1	2	1	28
7. Lytton Medical School, Mymensingh.	81	1	1	1	14
8. Ronaldshay Medical School, Burdwan.	63	Same as for Physiology. Do.		1	23
9. Chittagong Medical School, Chittagong.	91			1	29*
10. Jackson Medical School, Jalpaiguri.	62	1	1	1	12
11. Medical School, Agra	57	1	2	7	48
12. Women's Medical School, Agra.	16	1	1	1	7
13. Medical School, Amritsar.	97	1	1	2	35
14. Robertson Medical School, Nagpur.	30	1	1	1	18
15. Darbhanga Medical School, Laheriasera.	51	1	1	2	19
16. Berry White Medical School, Dibrugarh.	80	1*		13†	14
17. Orissa Medical School, Cuttack.	37	1	1	1	17

\* Both for Physiology and Pathology.

† Total for all Departments.

Pathology—*contd.*

School.	Average number of students.	Number of Teachers.		Laboratory attendants and servants.	No. of microscopes available for teaching.
		Lecturers.	Assistant Lecturers.		
	1	2	3	4	5
<b>GOVERNMENT—<i>contd.</i></b>					
18. Medical School, Hyderabad (Sind).	60	1	..	1	7
<b>NON-GOVERNMENT.</b>					
19. Missionary Medical School for Women, Vellore.	10	1	..	1	26
20. Miraj Christian Medical School, Miraj.	19	1	1	1	6
21. National Medical College, Bombay.	93	1	1	1	18*
22. Bankura Sammilani Medical School, Bankura.	91	2	..	1	16†
23. Calcutta Medical School, Calcutta.	160	1	3	2	10
24. National Medical Institute, Calcutta.	184	1	2	2 <sup>2</sup>	16
25. Women's Christian Medical College, Ludhiana.	23	1	2	2	16
26. The Ludhiana Medical School for Men, Ludhiana.	9	1	2	1	8
27. King Edward Hospital Medical School, Indore.	134	1	1	1	16

\* Total for Physiology, Pathology and Biology.

† Both for Physiology and Pathology.



## MEDICAL SCHOOLS.

TABLE E.

Particulars regarding the teaching of Midwifery in Medical Schools.

Particulars.	Stanley Medical School, Madras.	Lady Willingdon Medical School for Women, Madras.	Missionary Medical School for Women, Vellore, Madras.	B. J. Medical School, Ahmedabad.	Christian Medical School, Miraj. (Bombay)
(a) Students Annual Entry	66	22	20	50 to 60	25 every other year.
(b) Maternity Beds	75	50	64	24	12
(c) Students signed up for labour cases in 1936.	57	25	7	19	See Note against (f).
(d) Confinement cases available in 1936	3,134	2,000	301	255	76
(e) Increase in (d) from 1932 to 1936	707	987	15	54	3 students remain on maternity duty for 3 months. Then one of them is replaced by a new one every month and this goes on for 2½ years.
(f) Time allotted to (i) Midwifery and Infant Welfare (ii) Gynaecology	200 days concurrently.	7 months concurrently.	3 months. 3 months.	3 months	
(g) Is (f) whole time.	Yes	Yes	Yes	No	4 to 6 Yes
(h) Deliveries personally conducted by each student	20	20	20	6	Weekly periods of 1 hour each. One lecture annually in midwifery.
(i) Is (h) shared by other students	No	No	No	No	2
(j) Number of systematic lectures given annually.	100	36 hours.	2 hours per week for 3 terms in IV year and 1 hour per week for 3 terms in final year.	96	

TABLE E.—*contd.*

Particulars.	National Medical College, Bombay.	Campbell Medical School, Calcutta.	Medical School, Dacca.	Lytton Medical School, Mynensingh.	Ronaldshay Medical School, Burdwan.	Chittagong Medical School, Chittagong.	Jackson Medical School, Jalpaiguri.
(a) Students Annual Entry . . . . .	50	150	100	50	60	50	25
(b) Maternity Beds . . . . .	95	22	12	12	10	9	8
(c) Students signed up for labour cases in 1936.	25	105	124	39	71	35	35
(d) Confinement cases available in 1936 . . . . .	166	671	245	68	94	114	23
(e) Increase in (d) from 1932 to 1936 . . . . .	20	451	100%	32	70	64	12
(f) Time allotted to— { (i) Midwifery and Infant Welfare . . . . . { (ii) Gynaecology . . . . .	4 months 4 months.	2 mths. 21 days. 1 mth. 24 days.	2 months. 2 months.	{ 6 months. 2 months.	{ 2 months. 2 months.	{ 2 mths. & 2 weeks. Do.	{ 2 months. 2 months.
(g) Is (f) whole time . . . . .	No	No	Yes	Yes	No	No	Yes
(h) Deliveries personally conducted by each student . . . . .	6	..	1	6	6	4	6
(i) Is (h) shared by other students . . . . .	No	..	Yes	Yes	Yes	Yes	Yes
(j) Number of systematic lectures given annually.	175	50	50 or more	50	50	50	50

TABLE E.—*contd.*

Particulars.	Bankura Sammilani Medical School, Bankura.	Calcutta Medical School, Calcutta.	National Medical Institute, Calcutta.	Medical School, Agra.	Women's Medical School, Agra.	Medical School, Amritsar.	Ludhiana School for Men, Ludhiana.
(a) Students Annual Entry . . . . .	49	100	100	52	25	100	25
(b) Maternity Beds . . . . .	5	20	25	20	45	1	12
(c) Students signed up for labour cases in 1936.	31	65	58	72	21	90	Do not arise as the IV year class has not yet come into existence.
(d) Confinement cases available in 1936 . . . . .	104	320	327	448	1153	7	Do.
(e) Increase in (d) from 1932 to 1936 . . . . .	58	100%	Much increased.	271	82	Some decrease.	Do.
(f) Time allotted to { (i) Midwifery and Infant Welfare { (ii) Gynaecology . . . . .	No time limit. 2 months.	} 6 months.	2 months.	3 months.	3 months.	{ No special allotment of time.	Do.
(g) Is (f) whole time . . . . .	Yes, (ii) only.	Yes	No	No	No	No	Do.
(h) Deliveries personally conducted by each student . . . . .	2	6	6	6	25	Nil	Do.
(i) Is (h) shared by other students . . . . .	Yes	..	..	No	No	Yes when available.	Do.
(j) Number of systematic lectures given annually.	68	50	100	100	40	50	Do.

TABLE E.—*concd.*

Particulars.	Women's Christian Medical College, Ludhiana.	Robertson Medical School, Nagpur.	Medical School, Darbhanga.	Berry White Medical School, Dibrugarh, (Assam).	Orissa Medical School, Cuttack.	Medical School, Hyderabad, (Sind).	King Edward Hospital Medical School, Indore (Central India).
(a) Students Annual Entry	30 to 36	40	44	50	40	30	61 Intended to reduce it to 30. 16
(b) Maternity Beds	35	6	12	12	6	32	63
(c) Students signed up for labour cases in 1936	23	81	30	44	58	20	409
(d) Confinement cases available in 1936	1399	137	40	22	60	64 for girl students.	199
(e) Increase in (d) from 1932 to 1936	303	72	65	11	Nil	28	4 months.
(f) Time allotted to { (i) Midwifery and Infant Welfare (ii) Gynaecology	Once a week in III and once a week in IV	{ 78 hours. 40 hours. Yes	{ 1 lecture per week to all.	1½ months.	Time not fixed.	Time not fixed.	2 months. No
(g) Is (f) whole time	*See Foot-note.	Yes	Yes	Yes	Yes	Yes	Yes
(h) Deliveries personally conducted by each student	20	10-15 by girl students. None by male students.	Nil	Number not fixed.	2	6	6 for L.C.P. & S. course. None for L. M.P. course.
(i) Is (h) shared by other students	Yes	Yes	Yes	Yes	No	Yes	Yes
(j) Number of systematic lectures given annually	2 per week in III & 2 per week in IV year.	59	50	50	50	75	50

\* III year students act as Clinical clerks in Maternity ward for 2 weeks in rotation on normal cases and attend ante-natal clinics.  
 IV year students are for two weeks on abnormal and septic cases, and are called to the Maternity Block to see abnormal deliveries have 3 months gynaecological work as clerks, and have clinics in the Baby Ward on bottle feeding, etc. They attend ante-natal clinics.

## MEDICAL SCHOOLS,

TABLE F.

Statement showing the proportion of applicants with I. Sc. qualification to the total number of applicants for admission during 1937.

Name of the School.	Total number of applicants.	Number of applicants with I. Sc. qualifications.	Ratio between the two.
<i>Government.</i>			
1. Stanley Medical School, Madras . . . .	201	36	1 : .179
2. Lady Willingdon Medical School for Women, Madras.	43	..	..
3. B. J. Medical School, Poona (Bombay) . .	63	63	1 : 1
4. B. J. Medical School, Ahmedabad (Bombay)	72	42	1 : .583
5. Campbell Medical School, Calcutta (Bengal)	366	42	1 : .115
6. Medical School, Dacca (Bengal) . . . .	171	20	1 : .11.
7. Lytton Medical School, Mymensingh (Bengal).	84	4	1 : .048
8. Ronaldshay Medical School, Burdwan (Bengal).	99	8	1 : .08
9. Chittagong Medical School, Chittagong (Bengal).	71	4	1 : .056
10. Jackson Medical School, Jalpaiguri (Bengal).	49	3	1 : .061
11. Medical School, Agra (U. P.) . . . .	160	33	1 : .206
12. Women's Medical School, Agra (U. P.) . .	12)	..	..
13. Medical School, Amritsar (Punjab) . . .	30	24	1 : .071
14. Robertson Medical School, Nagpur (C. P.) .	223	20	1 : .09
15. Darbhanga Medical School, Laheriasera (Bihar).	210	13	1 : .062
16. Berry White Medical School, Dibrugarh (Assam).	144	26	1 : .18
17. Orissa Medical School, Cuttack (Orissa) .	124	1	1 : .008
18. Medical School, Hyderabad (Ind) . . . .	13	9	1 : .692
<i>Non-Government.</i>			
19. Missionary Medical School for Women, Vellore (Madras) .	66	10	1 : .15
20. Christian Medical School, Miraj (Bombay)	62*	1.*	1 : .242
21. National Medical College, Bombay . . . .	196	121	1 : .612

\* These figures relate to 1936.

TABLE 'F'.—*contd.*

Name of the School.	Total number of applicants.	Number of applicants with I. Sc. qualifications.	Ratio between the two.
<i>Non-Government—contd.</i>			
22. Calcutta Medical School, Calcutta (Bengal)	220	45	1 : .205
23. Bankura Sammilani Medical School, Bankura (Bengal).	54	1	1 : .019
24. National Medical Institute, Calcutta (Bengal).	141	5	1 : .035
25. Women's Christian Medical College, Ludhiana (Punjab).	129	4	1 : .031
26. The Ludhiana Medical School for Men, Ludhiana (Punjab).	46	2	1 : .043
27. King Edward Hospital Medical School, Indore (C. I.)	221	36	1 : .163

Sex of Students.	Total No. of Students.	Maximum number of annual admissions.	Staff. Maximum marks 5 under each head.				Arrangement of duties.	Percentage marks necessary for pass at final examinations.	Appointment of Examiners.	No. of beds in attached hospital.	Daily average of in-patients.	Annual number of confinements.	Number of Microscopes for teaching.		Length of course in years.	Conformity with Standard Rules.
			School.	Hospital.	Numbers.	Qualifications.							Physiology.	Pathology.		
A M.&F.	305	62	1	2	1	2	1	33	—	236	197	247	12	11	4	Deficient in all 7 rules.
B N	276	50	2	3	2	3	2	50	—	216	199	93	20	18	4	" 1.
C M	180	50	1	2	2	3	2	50	+	109	86	14	7	10	4	" dc.
D M&F.	580	150	2	3	2	3	5	40	+	717	454	342	22	28	4	" In all but Rule ii.
E M&F.	396	100	4	4	4	4	5	40	+	288	174	554	18	17	4	" In all 7 rules.
F M.&F.	434	100	3	3	4	3	4	40	+	150*	115	125	16	8	4	" do.
G M	199	50	1	1	2	2	2	40	+	146	122	41	16	8	4	" do.
H M	222	50	2	2	4	2	1	40	+	83	63	54	12	4	4	" do.
I M&F.	490	115	2	2	2	3	3	40	+	261	259	144	48	8	4	" do.
J M	238	50	1	1	1	1	2	40	+	112	96	34	14	4	4	" do.
K M	168	50	1	1	2	2	2	40	+	109	85	47	19	5	4	" do.
L M	171	*35	2	3	2	3	3	40	+	101	85	9	13	2	4	" do.
M M	303	66	4	4	4	4	4	50	+	354	380	2,722	88	23	5	" In i, ii, iv and vii.
N F	96	20	4	4	4	4	5	50.	+	130	175	2,109	22	9	5	" In vi only.
O F	108	26	3	3	3	3	5	50	+	250	146	284	15	15	5	" In vi and vii only.

P	M & F	.	.	416	100	4	3	4	3	3	3	50	+	176	300	17	30	32	4	.	in all 7 rules.
Q	F.	.	.	128	36	4	2	5	2	2	4	50	+	240	175	1,068	19	10	4	."	in iii, vi and vii.
R	M & F	.	.	241	44	1	2	3	3	3	2	40	-	131	187	46	29	17	4	."	in all 7 rules.
S	M & F	.	.	199	33	2	2	2	3	3	3	40	-	218	181	62	12	6	4	."	in iv, v, vi and vii.
T	M	.	.	309	52	3	3	4	4	4	5	40 & 33	+	236	258	243	33	25	4	."	in all except i.
U	F	.	.	100	25	2	4	3	.	4	4	40 & 33	+	155	113	1,124	3	6	4	."	in iii, vi and vii only.
V	M & F	.	.	168	39	4	5	4	5	3	3	40	-	540	579	2,310	†10	†6	4	."	in vi and vii only.
W	M & F	.	.	318	60	2	3	3	3	3	2	40	+	300	225	803	24	30	4	."	in all except v.
X	M & F	.	.	174	71	1	1	2	2	2	3	40	+	220	233	215	13	3	4	."	in all except ii and iv
Y	M & F	.	.	110	36	1	2	2	2	2	2	40	+	144	120	41	12	2	4	."	do.
Z	M	.	.	46	18	2	3	2	2	2	1	40	+	250	225	90	7	10	4	."	in rules v, vi and vii
θ	M & F	.	.	233	45	2	2	3	3	3	4	40	-	250	250	2,623	12	10	4	."	in vi and vii only.
ψ	M & F	.	.	233	50	4	5	5	5	5	3	40	+	75	61	157	14	...	4	."	in all 7 rules.

\* Since lowered to 36.

† + 31 from College.

‡ + 44 from College.



**MEDICAL SCHOOLS.**  
**TABLE H.**

Name of School.	Cost of teaching per student per annum.	Cost per bed for teaching per annum.
	Rs.	Rs.
<i>Government.</i>		
1. Stanley Medical School, Madras . . . . .	1,370	1,232
2. Lady Willingdon Medical School for Women, Madras . . . . .	3,492	475
3. B. J. Medical School, Poona . . . . .	1,018	1,027
4. B. J. Medical School, Ahmedabad . . . . .	802	641
5. Campbell Medical School, Calcutta . . . . .	1,068	712
6. Medical School, Dacca . . . . .	604	833
7. Lytton Medical School, Mymensingh . . . . .	456	676
8. Ronaldshay Medical School, Burdwan . . . . .	450	560
9. Chittagong Medical School, Chittagong . . . . .	502	831
10. Jackson Medical School, Jalpaiguri . . . . .	930	1,004
11. Medical School, Agra . . . . .	1,094	1,098
12. Women's Medical School, Agra . . . . .	1,305	615
13. Medical School, Amritsar . . . . .	538	976
14. Robertson Medical School, Nagpur . . . . .	920	857
15. Darbhanga Medical School, Laheriasera . . . . .	638	654
16. Berry White Medical School, Dibrugarh . . . . .	739	959
17. Orissa Medical School, Cuttack . . . . .	1,088	845
18. Medical School, Hyderabad (Sind) . . . . .	1,044	755
<i>Non-Government.</i>		
19. Missionary Medical School for Women, Vellore . . . . .	2,057	514
20. Miraj Christian Medical School, Miraj . . . . .	3,679	403
21. National Medical College, Bombay . . . . .	256	799
22. Bankura Saanmilani Medical School, Bankura . . . . .	275	364
23. Calcutta Medical School, Calcutta . . . . .	458	915
24. National Medical Institute, Calcutta . . . . .	403	621
25. Women's Christian Medical College, Ludhiana . . . . .	1,620	798
26. Ludhiana Medical School for Men, Ludhiana . . . . .	593	650
27. King Edward Hospital Medical School, Indore . . . . .	588	876

*N. B.*—Cost of teaching per student . . . =  $\frac{\text{Expenditure on School + all attached hospitals.}}{\text{Number of students.}}$

Cost per bed for teaching . . . =  $\frac{\text{Expenditure on School + all attached hospitals.}}{\text{Number of beds.}}$

## MEDICAL SCHOOLS.

TABLE I.

Hostel accommodation provided for students.

Category.	Number of students.	Hostel accommodation provided for.	Ratio of columns 2 and 3.	Average cost* per student per month.
1	2	3	4	5
				Rs. A.
Government . . . . .	4,650	2,064	44.4%	14 4
Non-Government . . . . .	1,842	743	40.3%	17 8

\* This includes hostel rent and messing charges.

## 3. MILITARY MEDICAL STUDENTS.

(Indian Medical Department.)

The Indian Medical Department, a Subordinate Medical Service, consists of the Assistant Surgeon and the Sub-Assistant Surgeon Branches.

2. The Assistant Surgeon Branch is for service with British troops only. It has been in existence since the early years of the 19th Century. The total strength has varied from year to year being 604 in 1928, 823 in 1933 and 484 in 1938.

3. In order to provide for war reserve, a portion of this personnel is seconded for civil employ. They are, however, liable to reversion to military duty at any time. Whilst as many as 224 military Assistant Surgeons were in civil employ in 1914, there were only 107 in civil employ in provinces and under the Departments of the Government of India in 1937. The decrease in recent years is noteworthy and is attributable to the development and expansion of provincial medical services.

4. Recruitment to this Branch which is restricted to Europeans, Domiciled Europeans and Anglo-Indians was made until 1920 by a competitive examination; later between 1921 and 1933 it was made by selection. Since 1934, however, it has been made by interview by a Selection Committee. No candidate who has not passed the Intermediate Science examination of a recognised Indian University or its equivalent is now accepted for admission to Medical Colleges. Candidates while under training in the Medical Colleges receive a Scholarship of Rs. 60 p.m. and the Government of India pays a capitation fee to the Provincial Governments to cover the cost of their education. Those admitted to the Medical Colleges are required to undergo the Course prescribed for the M.B.B.S. Degree of the Universities of Calcutta, Madras or Bombay.

5. These medical men, who in the early stages of the evolution of the Department were called as "Apothecaries", are now termed as "Assistant Surgeons".

6. The Sub-Assistant Surgeon Branch of the I.M.D., created as early as 1822 under the designation of "Hospital Assistants", is composed entirely of Indians, and its members are employed to assist I.M.S. officers in the medical care of Indian troops. Of a total strength of about 698, 96 were in civil employ in 1935, 87 in 1936 and 89 in 1937. The last number included 9 employed on Railways, 6 under the North West Frontier Province, 13 on foreign service (under the Indian Research Fund Association, Nyasaland Protectorate, Burma, etc.), and the rest under the Central Government. There are 61 Subadars, 2 Subadar-Majors and 7 Honorary Indian Commissioned Officers in His Majesty's Indian Land Forces.

7. Upto 1931 admission to Government Medical Schools was made by the Principals of those institutions and the candidates thus selected received a Scholarship of Rs. 12 p. m. and free training, while the Government of India paid a capitation fee to the Local Governments concerned for their medical education. In 1932 this system was discontinued.

8. Till recently, recruitment to the permanent cadre of Sub-Assistant Surgeons was restricted to those medical students who had been educated at Government expense but had not been admitted to the service under the retrenchment scheme of 1932 and from the Sub-Assistant Surgeons reserve. It has now been decided to resort to open market and recruitment will henceforth be made by a Selection Board.

#### 4. MEDICAL EDUCATION OF WOMEN.

It is a curious fact that in India medical education for women was embarked on before any other kind of professional education, and at a time when literacy among women, which is even now only 29 per mille, must have been only a fraction of one per cent. The reason for this phenomenon is not far to seek. It depended, in fact, on the customs relating to women which were then prevalent and which made it impossible for the majority of Indian women to receive medical aid at the hands of men.

2. Christian missionaries who went into the "zenanas" became aware of the amount of suffering endured by women on account of their seclusion and this led to Missionary Societies sending out women medical missionaries in the attempt to relieve this suffering. The majority of the first medical women in India were missionaries, in fact a large proportion of the women who first studied medicine in the west, did so with the express object of becoming medical missionaries and helping their Indian sisters. The number of such workers was very small compared to the needs of the country and it was evident that if medical women were to provide medical aid for Indian women, these medical women must be largely Indian. As it was out of the question to send Indian women abroad in any numbers for study, a plan of education had to be devised in India. Some sixty years ago, the idea of forming a Medical School or College which would be staffed by women only, probably occurred to no one. Even if it had, the women to staff it, and a teaching hospital, would not have been available. Hence other means of educating medical women had to be sought.

3. Indian men were already receiving medical education. But could women join with them? It would certainly not be easy and some of the men teachers, like those in England, were not at all enthusiastic about having women pupils. In the end however it was a man Surgeon General Balfour of Madras who succeeded in implementing the proposal. In 1872 he advocated medical education for women as he was of opinion that the needs of Indian women could not be met by men "for the next hundred years". He proposed either to institute a nurses' training at the Women's and Children's Hospital, or else to form a class at the Medical College. The Director of Public Instruction considered this move as "entirely premature" and vetoed it. Surgeon General Balfour was not daunted however and renewed the proposal in 1874, this time being supported by Dr. H. C. Furnell, I.M.S., then Principal of the Medical College. Four students, who were either Europeans or Anglo-Indians were admitted to the Medical College. They studied for three years in what was then called the "Certificate" class and all passed the final examination "with great credit". One of these students was Dame Scharlieb who afterwards took a full medical course in London and had a distinguished career, first in Madras and then in London.

4. In the north of India, where the need for medical aid for women was even greater than in Madras, but where the difficulties of providing it were correspondingly great, some private efforts were made to educate medical women in the decade 1870-80. These efforts were highly praiseworthy, but were in the circumstances doomed to failure owing to lack of resources. In 1883 Brigade Surgeon Hilson suggested that women should be admitted to the Medical School for men at Agra, providing for privacy and protection for the women students. The Lieutenant Governor of the Province at that time was Sir Alfred Lyall and, grasping the needs of women and the possibility of thus providing for them, sanctioned the proposal. Later the Lady Lyall Hospital was founded to provide a practising field for the women students.

The course of events was very similar in Lahore, where women were admitted to classes in 1884, and the Lady Aitchison Hospital was started in 1886.

Women were admitted to the Medical College, Calcutta, in 1885 after some opposition from the Medical College authorities. In Bombay women were admitted without difficulty. In neither Presidency were separate classes for women held as this was not considered necessary.

A few years later a Medical School for women, under the auspices of an Interdenominational Missionary Committee was founded at Ludhiana in the Punjab.

A similar Medical School came into being at Vellore in the Madras Presidency in 1918.

5. While by the year 1910 women could study with men in the Medical College of Calcutta, Bombay and Madras and secure University degrees, the only provision in the whole of India for women to study apart from men, and be trained by members of their own sex, was at Ludhiana. A few non-Christian girls were admitted, but the School was a Christian foundation and its staff was missionary. This was a disadvantage to the

non-Christian and a further disadvantage lay in the fact that the School did not prepare for a University degree. New ideas were in the air, girls were entering Schools in larger numbers and wished to take up the study of medicine. There was talk of a Women's Medical Service for India, it must number Indian women among its members. Very few Indian girls went abroad for training and it was absurd to expect that they should. Therefore there were strong reasons for founding a College where women could study apart from men, be taught by their own sex and yet be prepared for University degrees. The Lady Hardinge Medical College, New Delhi, was accordingly established in 1916.

6. Of late years the Medical Colleges at Lahore and Lucknow have admitted women students. In the King Edward Medical College, Lahore, ten women are now taken annually in the 1st Year Medical class. King George's Medical College, Lucknow, has begun definitely to encourage women students. The number of women studying at the Grant Medical College, Bombay, and the Medical College, Madras, is 91 and 89 respectively. In Calcutta the number is smaller. It would seem as if the facilities for higher medical education for women were now sufficient for the number of suitable candidates applying and the subsequent opportunities for work. This statement may, indeed, meet with an indignant protest from would-be students (and their parents) who have been refused admission to a Medical College. Neither the parent nor the candidate, however, is the best judge of what constitutes "suitability" and there is no doubt that many girls seek to embark on a medical career with motives other than the pursuit of medical science or the desire to relieve suffering. It has also to be remembered that there is a sharp contrast between the need of the country for medical aid and its ability to employ medical women. If too many women qualify in medicine, some are certain to swell the ranks of the unemployed, a very undesirable state of affairs, especially when sister professions such as nursing and health visiting are crying out for candidates.

7. With regard to the Sub-Assistant class of medical practitioners, small numbers are at present studying in all the mixed Schools, while the numbers in the B. J. Medical School, Poona, the Robertson Medical School, Nagpur and the Medical School, Amritsar, are moderately large. The greatest number of women students of the S. A. S. Class however are found in the four schools which teach, and are staffed by, women only, i.e., Agra, Ludhiana, Madras and Vellore. Here again the position is the same as noted above in connection with College education, there is a distinct danger that unemployment will follow the training of too many students.

## 5. MEDICAL COUNCIL OF INDIA.

The Medical Council of India was constituted under the Indian Medical Council Act, (No. XXVII of 1933) in order, as stated in the preamble, to establish a uniform minimum standard of higher qualifications in medicine for all provinces. The Council has not been entrusted with the maintenance of a register, registration remaining with the provincial medical councils, nor have any disciplinary powers over medical practitioners been conferred upon it.

2. The Council is composed of:—

(a) One member from each Governor's province, nominated by the Central Government.

(b) One member elected by each British Indian University having a medical faculty, to be elected from amongst the members of the medical faculty of the University.

(c) One member from each province where a medical register is maintained to be elected from amongst themselves by persons enrolled on the register who possess recognised medical qualifications or qualifications granted by a British Indian University.

(d) Four members to be nominated by the Central Government.

3. For the first four years of the Council's constitution the President was nominated by the Governor General in Council, the Director-General, Indian Medical Service having been nominated to this post. The Secretary to the Council for four years from the commencement of the Act, was also a Government nominee. From November 1st, 1937 the Council has appointed the Secretary, and in February 1938 elected a President. The Council also elects from its members a Vice-President.

4. The Executive Committee consists of seven members, of whom five are elected by the Council from amongst its members. The President and Vice-President of the Council are *ex-officio* members and are also President and Vice-President respectively of the Executive Committee.

5. A member of the Council holds office for a term of five years.

6. The medical qualifications recognised under the Act are contained in the two annexed schedules. The First Schedule is composed of medical qualifications granted by medical institutions in British India, and contains, as originally passed in the Act, the medical degrees of those British Indian Universities which were included in Table 'I' of the Medical Register of Great Britain for 1931, that is, all except Andhra, Patna and Rangoon Universities. The M.B.B.S., degree of Patna University was included by Government Notification of May 11th, 1935, and that of Rangoon University on 10th December, 1936, on the Council's recommendation. The non-Indian medical qualifications recognised under the Act are given in the Second Schedule. Inclusion on the Second Schedule is sufficient qualification for enrolment on any provincial medical register.

7. The functions of the Council fall under two heads:—

(1) The maintenance of a uniform minimum standard of higher medical qualifications for the whole of British India;

(2) The furtherance of the recognition of these qualifications in States and Countries outside British India, with its corollary, the reciprocal recognition in this country of approved qualifications of such States and Countries.

8. For the first purpose the Council has been invested by Sections 11, 15, 16 and 17 with wide powers of requiring information regarding courses of study and examinations and of inspection of examinations, and can make representation to the Central Government if it is satisfied that the courses of study or examinations to be gone through in any medical

institution in British India in order to obtain a recognised medical qualification are not such as to secure the knowledge and skill requisite for the efficient practice of medicine. The procedure is laid down whereby the Central Government may enquire into such representation and remove the qualification from the Schedule. In fulfilment of this duty the Council, between 1934 and 1936, required full information from all the British Indian Universities which grant medical qualifications and, by means of a specially appointed panel of inspectors, completed the inspection of all these medical institutions and their final examinations for the medical degrees. By October 1936 the Council had approved of the qualifications of Patna, Bombay, Lucknow, Madras, the Punjab, Calcutta and Rangoon Universities.

In order to indicate the minimum requirements which it considered necessary for the securing of the requisite knowledge and skill for the practice of medicine, the Council immediately after its constitution, drew up, after consulting the Universities, a series of recommendations on professional education (pages 62—67) and on professional examinations, copies of which were supplied to the medical institutions concerned. A revision of the "Recommendations on Professional Education" in accordance with the latest developments in and suggestions for the improvement of the curriculum was undertaken in 1936, after the completion of the inspections, and the revised recommendations have been adopted and will come into effect from the commencement of the session of 1940.

It must be remembered that the Council has no power to lay down hard and fast rules for the curriculum, and this really is an advantage, for it enables the various teaching bodies to make experiments and improvements and leads, in the long run, to progress.

9. For the second purpose, provisions have been included in the Act for the modification, after the initial period of four years, of the Second Schedule, which consists of the non-Indian qualifications.

The Council is authorised by Section 14 of the Act to enter into negotiations, for the settling of a scheme of reciprocity for the recognition of medical qualifications, with the authority in any State or Country outside British India which is entrusted by the law of such State or Country with the maintenance of a register of medical practitioners. The Second Schedule now contains only those non-Indian qualifications which are accepted by the Council on a basis of reciprocity. Enquiries have been made from other Countries, not having medical qualifications of their own, in which Indian Medical Practitioners have special interest, as to the condition of practice at present obtaining there. Except Tanganyika, all have expressed their inability to recognise any qualification not recognised by the General Medical Council and this restriction applies to the qualifications of other Countries as well.

10. The General Medical Council of Great Britain, has accepted for registration in the United Kingdom all the degrees granted by the British Indian Universities which have been approved by this Council, those of Bombay, Lucknow, Madras and the Punjab Universities with retrospective effect from February 25, 1930 (the date from which previous recognition was withdrawn), those of Patna from May 11th, 1935 (the date of the Government notification placing them on the First Schedule of the Act).

and those of Calcutta from October 15th, 1936 (the date of the second inspection of the Carmichael Medical College by the Inspectors of the Council at which the Inspectors reported that the facilities for the teaching of students might be considered adequate). As Burma has now been separated from India the General Medical Council is in direct communication with the Rangoon University.

### THE FIRST SCHEDULE.

*Recognised medical qualifications granted by medical institutions in British India.*

Medical Institution.	Recognised medical qualification.	Abbreviation for registration.
University of Allahabad.	Bachelor of Medicine and Bachelor of Surgery.	M.B., B.S., All.
University of Bombay	Licentiate in Medicine and Surgery . Bachelor of Medicine and Bachelor of Surgery. Doctor of Medicine . . . . . Master of Surgery . . . . .	L.M.S., Bom. M.B., B.S., Bom. M.D., Bom. M.S., Bom.
University of Calcutta	Licentiate in Medicine and Surgery . Bachelor of Medicine . . . . . Doctor of Medicine . . . . . Master of Surgery . . . . . Master of Obstetrics . . . . .	L. M.S., Cal. M.B., Cal. M.D., Cal. M.S., Cal. M.O., Cal.
University of Lucknow	Bachelor of Medicine and Bachelor of Surgery. Doctor of Medicine . . . . . Master of Surgery . . . . .	M.B., B.S., Lucknow M.D., Lucknow. M.S., Lucknow.
University of Madras	Licentiate in Medicine and Surgery . Bachelor of Medicine and Master of Surgery. Bachelor of Medicine and Bachelor of Surgery. Doctor of Medicine . . . . . Master of Surgery . . . . .	L.M.S., Mad. M.B., C.M., Mad. M.B., B.S., Mad. M.D., Mad. M.S., Mad.
Punjab University	Licentiate in Medicine and Surgery . Bachelor of Medicine . . . . . Bachelor of Medicine and Bachelor of Surgery. Doctor of Medicine . . . . . Master of Surgery . . . . .	L.M.S., Pun. M.B., Pun. M.B., B.S., Pun. M.D., Pun. M.S., Pun.
University of Patna	Bachelor of Medicine and Bachelor of Surgery. Doctor of Medicine . . . . . Master of Surgery . . . . .	M.B., B.S., Patna. M.D., Patna. M.S., Patna.



## THE SECOND SCHEDULE.

*Recognised medical qualifications granted by medical institutions outside British India.*

Country.	Qualifications.		
UNITED KINGDOM	Registrable qualifications admitting primarily to the Medical Register granted by licensing bodies in the United Kingdom, as shown in Table (F) set out in the Medical Register printed and published from time to time under the direction of the General Council of Medical Education and Registration of the United Kingdom in pursuance of the Medical Acts, 1858 and 1886.		
Other countries.	Registrable qualifications.		
	Title.	Nature of qualifications as stated on diplomas.	Abbreviations.
<b>AUSTRALIA—</b> <i>New South Wales—</i> University of Sydney .	M. B. . M. D. . Ch.M., B.S.	Medicine and Surgery.	U. Sydney.
<i>South Australia—</i> University of Adelaide.*	M.B., B.S. M.D. M.S.		
<i>Victoria—</i> University of Melbourne†	M.B. M.D., B.S. M.S.	Do.	U. Melbourne.
<b>BURMA—</b> University of Rangoon	M.B., B.S.	Do.	U. Rangoon.
<b>CANADA—</b> <i>Alberta—</i> College of Physicians and Surgeons of the Province of Alberta†. University of Alberta†.	Member . M.D.	Do. Do.	C. P. and S. Alta. U. Alberta.
<i>Manitoba—</i> College of Physicians and Surgeons of the Province of Manitoba.† University of Manitoba†	Member . M.D., M.D., C.M.	Do. Do.	C. P. & S. Man. U. Man.

\* The qualification must be included in Table (I) of the British Medical Register as published from time to time by the General Council of Medical Education and Registration of the United Kingdom.

† When granted on or before the 31st October, 1937.

Other countries.	Registrable qualifications.		Abbreviations.
	Title.	Nature of qualifications as stated on diplomas.	
<b>CANADA—contd.</b>			
<i>North-West Territories—</i> College of Physicians and Surgeons of the Province of North-West Territories†. (When held in conjunction with Licence of the College of Physicians and Surgeons of the Province of Saskatchewan or the Province of Alberta.).	Member . .	Medicine and Surgery.	C. P. & S. N. W. Terr.
<i>Nova Scotia—</i> Nova Scotia Provincial Medical Board*.	L.M.S. . .	Do. . .	N. Scotia P. M. Bd.
Dalhousie University*	M.D., C.M. . .	Do. . .	Dalhousie U.
<i>Prince Edward Island—</i> Prince Edward Island Medical Council†.	L.M.S. . .	Do. . .	M. Co. P. E. I.
<b>CEYLON.</b> Ceylon Medical College*.	L. M.S. . .	Do. . .	Ceylon M. Coll.
<b>HONG KONG—</b> University of Hong Kong* .	M.B., B.S. } M.D., M.S. }	Do. . .	U. Hong Kong.
<b>ITALY—</b> All Royal Italian Universities†.	M. D. . .	Do. . .	..
<b>JAPAN—</b> All Imperial Universities†.	M.B. (Igakushi) M.D. (Igaku Hakushi).	Do. . .	..
Any Government or Prefectural special medical colleges designated by a Minister of Education of Japan†.	M.B. (Igaksuhi)	Do. . .	..
<b>MALTA—</b> Royal University of Malta .	M.D. . .	Do. . .	U. Malta.
<b>NEWFOUNDLAND—</b> Newfoundland Medical Board†.	L.M.S. . .	Do. . .	Nffd. M. Bd.

\* The qualification must be included in Table (I) of the British Medical Register as published from time to time by the General Council of Medical Education and Registration of the United Kingdom.

† When granted on or before the 31st October, 1937.

‡ The qualification must be included in Table (J) of the British Medical Register as published from time to time by the General Council of Medical Education and Registration of the United Kingdom.]

Other countries.	Registrable qualifications.		
	Title.	Nature of qualifications as stated on diplomas.	Abbreviations.
<b>NEW ZEALAND</b> — University of New Zealand .	M.B., Ch.B. Ch. M., M.D. }	Medicine and Surgery.	U. N. Zealand.
<b>UNION OF SOUTH AFRICA</b> — University of South Africa† University of Cape Town* .	M.B., Ch. B. M.B., Ch. B. M.D., Ch.M. }	Do. Do.	U. S. Africa. U. Cape Town.
University of the Witwatersrand, Johannesburg.*	M.B., Ch.B. M.D., Ch.M. }	Do.	U. Witwatersrand.
<b>STRAITS SETTLEMENTS AND FEDERATED MALAY STATES</b> — The King Edward VII College of Medicine, Singapore*.	L.M.S.	Do.	Singapore Med. Coll.

## 6. PROVINCIAL MEDICAL COUNCILS.

**Medical Acts.**—The first Medical Council to be established in India was that of Bombay, which came into being as a result of the Bombay Medical Act, 1912. The year 1914 witnessed the enactment of the Madras Medical Registration Act and the Bengal Medical Act. Similar Acts were enacted in the Punjab, Bihar and Orissa, Central Provinces and Assam in 1916, and in the United Provinces of Agra and Oudh in 1917. Medical registration in the Province of Orissa is regulated by the Orissa Medical Regulation (II) of 1936, while Sind is affiliated to the Bombay Medical Council, to whom it nominates one representative. The provinces of Delhi and North-West Frontier are similarly affiliated to the Punjab Medical Council, to whom the Chief Commissioner, Delhi, and the North-West Frontier Province Government nominate one and two representatives respectively.

The Central Provinces Medical Registration Act, 1916, is not in force yet and therefore no Medical Council exists in that province.

The aim of the legislation covered by the various Acts of Medical Registration is to improve the status of qualified medical practitioners, and to regulate the practice of scientific medicine, without interfering with the practice of indigenous systems. Under the Acts certain privileges are granted to qualified and registered practitioners but no penalties are imposed on unqualified persons.

The various Provincial Acts of Medical Registration provide for the formation of a Medical Council in each province where such legislation obtains, the registration of qualified medical practitioners and maintenance

\* The qualification must be included in Table (I) of the British Medical Register as published from time to time by the General Council of Medical Education and Registration of the United Kingdom.

† When granted on or before the 31st October, 1937.

and periodical publication of the registers of such practitioners. The functions of the Medical Councils include, besides the maintenance of a register of qualified medical practitioners, the supervision of medical education, inspection of examinations, exercise of disciplinary control over medical practitioners and that of advising the Local Government in regard to the recognition of the various medical qualifications.

#### Composition of Councils.

Name of Province.	Nominated President.	Nominated Members.	Elected Members.	Total strength of the Council.	Remarks.
1. Madras . .	1	7	7	15	1 Vice-President to be elected from among members.
2. Bombay . .	1	6*	6	13	
3. Bengal . .	1	7	7	15	
4. United Provinces.	1	5	9	15	
5. Punjab . .	1	8†	7	16	1 Vice-President to be elected from among members.
6. Bihar . .	1	5	5	11	
7. Central Provinces.	1	6	6	13	These are the provisions of the Central Provinces Act which is not yet in force.
8. Assam . .	1	6	6	13	
9. Orissa . .	1	4	Nil.	5	

**Tenure of Members.**—The tenure of members is five years in Madras, Bombay, United Provinces, Central Provinces and Bihar, and three years in Bengal, Punjab, Assam and Orissa.

A member is deemed to have vacated his seat under certain conditions, which, with minor modifications, are as follows under the provision of the various Medical Acts:—

1. submission of resignation in writing,
2. absence from three consecutive meetings of the Council without excuse considered sufficient in the opinion of the Council,
3. absence out of India for a period of or exceeding six months,
4. removal of name from register for any of the reasons specified in the various Acts viz., conviction for an offence indicating

\* This figure includes one member nominated by the Sind Government.

† This figure includes 2 nominees of the N. W. F. P. Government and one member nominated by the Chief Commissioner, Delhi.

defect in character or infamous conduct in any professional respect,

5. insolvency or insanity declared by a competent court,

6. expiry of tenure.

The Medical Council have the power to appoint a Registrar, some with and others without the previous sanction of the Local Government. The Registrar acts as Secretary and in certain provinces also as Treasurer of the Council. The Councils have also the power to appoint such other officers, clerks and servants as they may consider necessary. Every officer, clerk or servant of the Council is deemed to be a public servant within the meaning of Section 21 of the Indian Penal Code.

**Persons eligible for Registration.**—Persons possessed of qualifications included in the respective Schedules to the various Acts or those already registered under the British Medical Act are eligible for registration. Briefly speaking, persons with qualifications granted by the various Universities, State Medical Faculties or Medical Examination Boards in India or Universities of the United Kingdom or by some of the Colonial and Dominion Universities are eligible for registration. In addition, Section 12 of the Indian Medical Council Act, 1938, provides that medical qualifications granted by medical institutions outside British India which are included in the Second Schedule shall be sufficient qualification for enrolment on any Provincial Medical Register. Besides, the Bombay Medical Act, 1912, also empowers the Local Government to permit registration, after consultation with the Medical Council, of any person actually practising medicine in the Bombay Presidency before the 25th June 1912. The Punjab Medical Registration Act, 1916, provides also for the registration of persons actually practising medicine in the Punjab, North-West Frontier Province, or Delhi before the 25th September, 1915.

#### Fees Charged for Registration.

Province.	Fee for first registration.	Fee for registration of additional qualifications.	Other provisions of the Act regarding fees.
1. Madras . . . . .	Rs. 15	Rs. 5	No fee charged from persons registered with other Provincial Medical Councils, with whom reciprocity in this respect exists. Ditto.
2. Bombay . . . . .	15	5	
3. Bengal . . . . .	15	5	
4. United Provinces . . . . .	15	5	
5. Punjab . . . . .	32	5	
6. Central Provinces . . . . .	15	5	The Central Provinces Medical Registration Act, 1916 is not yet in force.
7. Bihar . . . . .	45	5	
8. Assam . . . . .	15	5	Rs. 5 charged on first registration from those already registered with Medical Council with whom reciprocity in this respect exists.
9. Orissa . . . . .	15	5	

**Registration.**—Every Medical Council is required to maintain a register of medical practitioners and from time to time revise the register and publish it in the prescribed manner. Such register is deemed to be a public document within the meaning of the Indian Evidence Act, 1872. In addition, the Acts provide for the printing and publishing of an Annual Medical List containing names, addresses and qualifications of all persons for the time being entered in the register and every Court shall presume that any person whose name is entered in the latest of such lists is duly registered.

**Disciplinary Powers.**—An important function of the Medical Councils is to deal with cases of professional misconduct. For this purpose the Acts authorise Medical Councils to direct removal altogether or for a specified period from the register of the name of any registered practitioner who has been found guilty by a majority of two-thirds of the members present and voting of infamous conduct as a result of an inquiry conducted by the Council or a Committee thereof at which an opportunity has been given to the medical practitioner concerned to be heard in his defence and to appear either in person or by counsel, vakil, pleader or attorney. The Council may similarly direct the removal from the register of the name of a practitioner who has been convicted of any such offence as implies a defect of character, or of a cognizable or non-bailable offence, as defined in the Code of Criminal Procedure, 1898, such sentence not having been subsequently reversed or quashed.

The Councils have power to order the restoration of the names so removed.

**Supervision of Medical Education and Inspection of Examinations.**—The Medical Councils are empowered to call on the authorities of any university, medical college, or school included or desirous of being included in the Schedule of registrable qualifications to:

- (a) furnish such reports, returns or other information as the Council may require to enable it to judge of the efficiency of the instruction given therein in medicine, surgery and midwifery,
- (b) provide facilities to any member of the Council deputed by the Council in this behalf to be present at the examinations held by such university, college or school.

The Madras, Punjab and Central Provinces Acts also provide that if the authorities referred to above refuse to comply with any such demand the Local Government may, upon report by the Council, remove such university, college or school from the Schedule or refuse to include it in the Schedule.

In practice under the Act of 1933, the Medical Council of India has been entrusted with the duty of inspecting the various degree examinations and of establishing a uniform minimum standard of higher qualifications in medicine for all provinces. The Provincial Medical Councils are, therefore, concerned only with the regulation and inspection of examinations conducted by the various Provincial State Medical Faculties or Medical Examination Boards, which grant licenses diplomas or certificates in respect of lower medical qualifications.

**Complaint under the Indian Medical Degrees Act, 1916.**—Section 7 and 8 of the Indian Medical Degrees Act, 1916, provide that cognizance of an offence punishable under that Act may be taken by the Court of a Presidency Magistrate or a Magistrate of the First Class upon complaint made, with the previous sanction of the Local Government, by a Council of Medical Registration established by law.

**Privileges of Registered Medical Practitioners.**—Under the various Acts, registered medical practitioners are entitled to the following privileges:—

- (1) No certificate required by law to be given by a medical practitioner or officer shall be valid unless signed by a registered practitioner,
- (2) except with the special sanction of the Local Government, no one other than a registered practitioner shall be competent to hold any Government or semi-Government appointment as Physician, Surgeon, or other Medical Officer in any Hospital, Asylum or Dispensary.

**Legal Privileges of Medical Councils.**—All Acts of Medical Registration provide for a bar to suits and other legal proceedings by laying down that no act done in the exercise of any power conferred by the Act on the Local Government or the Council or the Registrar shall be questioned in any civil court.

The Madras, United Provinces, Punjab and Central Provinces Acts confer another privilege also on their respective Medical Councils by providing that for the purpose of any inquiry with regard to the professional misconduct of a medical practitioner applying for registration or of one already registered or in hearing an appeal against the decision of a Registrar who may have refused registration to an applicant desirous of getting his name registered the Council or any authorised Committee thereof shall be deemed to be a Court within the meaning of the Indian Evidence Act, 1872; and such Council or Committee thereof shall exercise all powers of a Commissioner appointed under the Public Servants (Inquiries) Act, 1850, and such inquiries and appeals shall be conducted, as far as may be, in accordance with the provisions of Section 5 and Sections 8—20 of the Public Servants (Inquiries) Act, 1850.

**Appeals.**—With regard to appeals the following provisions exist in the various Acts of Medical Registration.

**Appeal against decision of the Registrar.**—An appeal shall lie to the Council, within three months from the date of the order, against any order of the Registrar refusing to enter the name or any title or qualification of the appellant in the register of registered practitioners. The Council's decision on such appeals shall be final.

**Appeal to Local Government against decision of the Council.**—An appeal shall lie to the Local Government within three months from every decision of Council refusing registration to or removing the name of any person who has been sentenced for any non-bailable or cognizable offence or any such offence as implies defect of character or who has been found guilty of infamous conduct in any professional respect by an inquiry of the Council at which he has been given an opportunity to be heard.

**Penal Clause.**—The only penal clause existing in the Acts of Medical Registration is affecting persons who falsely pretend to be registered practitioners or use in connection with their names or titles any words or letters representing that they are registered medical practitioners. Such persons are liable to be punished on conviction with fine that may extend to Rs. 800.

**Control of Councils by Local Governments.**—The Madras, Bombay, United Provinces, Punjab and Central Provinces Acts provide for the vesting of overriding, final and residuary powers in the Local Government by providing that if at any time it shall appear to the Local Government that the Council has neglected to exercise or has exceeded or abused any of its powers or has neglected to perform any of its duties, the Local Government may notify the particulars of such neglect, excess or abuse to the Council, and if the Council fails to remedy such neglect, excess or abuse within such time as may be fixed by the Local Government in that behalf, the Local Government may cause any of the powers and duties of the Council to be exercised and performed by such agency and for such period as the Local Government may think fit.

**Recognised Medical Qualifications.**—The annexed schedule shows the medical qualifications recognised by the various Provincial Medical Councils.

#### SCHEDULE.

1. Medical qualifications granted by medical institutions in British India which are included in the First Schedule of the Indian Medical Council Act, 1933 (See page 159).

2. Medical qualifications granted by medical institutions outside British India which are included in the Second Schedule of the Indian Medical Council Act, 1933 (See pages 160—62).

3. A diploma or certificate granted by a Provincial Government in British India to any person trained in a Medical College or School declaring him to be qualified to practise Medicine, Surgery and Midwifery.

4. Certificates, diplomas, or licences, granted by the following examining bodies to practise Medicine, Surgery and Midwifery:—

- (a) The Punjab State Medical Faculty.
- (b) The State Medical Faculty of Bengal.
- (c) The 'College' of Physicians and Surgeons of Bombay.\*
- (d) The Board of Examiners, Madras Medical College, Madras.
- (e) The United Provinces State Board of Medical Examinations or State Medical Faculty.
- (f) The Bihar and Orissa Medical Examination Board.
- (g) The Assam Medical Examination Board.
- (h) The Central Provinces Medical Examination Board.

5. The M.B., B.S., degrees and the L.M.S. and L.M.P. diplomas granted by the Osmania University, Hyderabad.



6. The M.B., B.S., degrees and the L.M.P. diplomas granted by the Mysore University.

7. The M.B., B.S., and L.M.S. degrees granted by the Andhra University.

8. The diplomas or certificates granted by the King Edward Hospital Medical School, Indore.

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*N. B.*—No. 5 is not recognised by the Bengal and United Provinces, No. 6 by the Punjab, United Provinces and Bihar, No. 7 by the Punjab and No. 8 by the United Provinces, Madras, Bengal and Bihar Medical Councils.

## CHAPTER VI.

### Nursing in India.

### HISTORICAL.

1. Only a few scattered records of the nursing profession in India are available so that the history is not easy to investigate, but although the science and art of nursing has not reached the stage of development as in most other countries, it is interesting to note that from authentic evidence it is certain that provision was made for the sick and attendants for them were employed, long before the Christian era. These attendants were placed under the direction of skilled physicians and surgeons, amongst whom Charaka and Susruta were the most advanced of their time. Susruta is said to have lived 14 centuries B. C. and Charaka about 320 B. C. Massage was one of the old practices in use as a health measure, and there were women practitioners of massage for attending on the females and men practitioners for men. The ancient Hindus believed more in the prevention than in the cure of disease, which belief is again in the 20th century gaining ground steadily. The books of the Ayur-Veda, believed to be the legacy of Brahma himself, are in 8 parts and cover the whole field of medical science with the inclusion also of nursing treatment. There are more details of nursing in the old Indian records than in those of any other country in the world.

2: The following reference to the nurse and to the patients are to be found in Lesson IX of Charaka Samhita:—

**Nurse.**—Knowledge of the manner of preparing drugs, or of compounding them, cleverness, devotedness to the patient waited upon and purity of mind and body, are the qualifications of a nurse.

**Patient.**—Memory, obedience, fearlessness and communicativeness with respect to all that is experienced internally, and done by him in the intervals between visits, are the qualities of the patient. Like clay, wheel, stick and threads in the absence of the potter, failing to produce anything by the combination, drugs, nurse and patient cannot work out a cure without a physician.

Later on hospitals were developed by King Asoka in the 3rd century B. C., and in one of the records following on that of the description of buildings used for the care of the sick is written:—

“After this should be secured a body of attendants of good behaviour distinguished for purity and cleanliness of habits, possessed of cleverness and skill, endowed with kindness, competent to cook food and curries, clever in bathing or washing a patient, well conversant in rubbing or pressing the limbs, raising a patient or helping him to walk, well-skilled in making or cleaning beds, able to pound drugs, always ready, patient and skilful to wait upon one who is ailing, and never unwilling to do what is commanded by the Physician.”

8. From the above it is obvious that even in the dim distant ages, a nursing attendant was a person from whom much was expected and it is difficult to understand how in later years the profession came to be thought one only for women of low repute. The most advanced era of Hindu medicine was from 250 B.C. to 750 A.D. but after that there was deterioration and there is from that time onward a tremendous gap, during which years nothing of note happened. There does not appear to be any recorded explanation of how the great Hindu civilization met with the failure of its medical system, but the fact remains that between 800 B. C. and 1000 A. D. India could hold her own with other countries in the practice of healing. Public hospitals were abolished from 1000 A.D., and the next mention of their establishment occurs in connection with the needs of the British army in India. The founding of the Madras General Hospital is an example. On November 10, 1684, the Council of Fort St. George, wrote to the Agent, Sir Edward Winter: "Fresh soldiers which came forth this year taking up their habitation in the bleak wind in the hall, fell sick. Four of them have died and ten remain at this time very sick. See rather than see Englishmen dropp away like doggs in that manner for want of Christian charity towards them, we have thought it very convenient that they might have an house on purpose for them, and people appointed to look after them, and see that nothing comes into them, neither of meat nor drinke, except what the Doctor, alloweth."

4. We do not know anything more of the capabilities of those persons appointed as attendants, but the fact that they were carrying out the Doctors' orders places them in the category of "Nurses".

5. It is probable that similar provision for the care of sick soldiers took place in other provinces of India but no facts are known. There is again a gap of a large number of years until the name of Florence Nightingale became known all the world over for her reforms in army nursing during the Crimean War in 1854. Here it was that Florence Nightingale, known amongst the men of the British armies in Turkey as "The Lady of the Lamp", laid the foundation of modern organised nursing, as we know it today, for the benefit of the whole world. The Crimean War has great significance for the people of India since following closely upon it came the Indian Mutiny. Florence Nightingale never visited India but during the Mutiny though broken down in health, her thoughts turned to the needs of the British soldiers and she worked out reforms which were the means of reducing the mortality rate amongst the troops from 69 per 1000 to 5 per 1000. The Royal Commission on Sanitation in India appointed by Lord Stanley in 1859 was the result of Florence Nightingale's insistence and the bulk of the Report was her own work.

6. In 1854 a school for the training of midwives was established at the Lying-in-Hospital, Madras, which formed the nucleus of the training school established later in the Madras Government General Hospital. The earlier scheme for training provided that candidates who failed to secure a diploma in midwifery could be given a sick nursing certificate. This system proved unsatisfactory and was abandoned in 1871 when the Government of Madras sanctioned a scheme for the training of 6 nurses in the Madras General Hospital. Liberal inducements were held out to trained

midwives to join the Nurses Training Class as there was dearth of sick nurses and super-abundance of midwives.

7. The Hospital Nurses Institution of Calcutta was founded in 1859 and the nucleus was 2 nurses, who commenced work in the wards of the Calcutta Medical College Hospital. In a year's time the staff was increased in order to supply nurses to the Presidency General Hospital and later to other hospitals and private houses. The nurses employed and trained were Europeans and Anglo-Indians, and mission hospitals were the first to start the training of Indian nurses. The women responsible for the carrying out of this training of Indian girls came out ready trained from their own countries.

8. In 1885 Lady Dufferin, the wife of the newly appointed Governor-General of India, was requested by Queen Victoria before leaving England to do what she could on arrival to provide a means of supplying medical aid to the women of this land, and in order to carry out the Queen's wish, the "Countess of Dufferin's Fund" was inaugurated and subscribed to liberally by the people for so worthy an object. This was the first national effort for the establishment of medical relief for the women of India and the earliest training school for nurses and midwives financed by the Countess of Dufferin's Fund was begun at the Cama Hospital, Bombay. At the present time a very large amount of valuable help is given by this Fund to Women's and Children's hospitals in all parts of India.

9. About the same time, the Sisters of All Saints, an Anglican Order, took over the nursing at the European General Hospital, Bombay, and a year later, at St. George's Hospital, the intention of the authorities being the foundation of nurse training schools to supply the other hospitals as well as their own with European and Anglo-Indian trained nurses. The period of training given was at first one year, later increased to 18 months and further extended in 1905 to 3 years.

10. In the same year the Association of Hospital Matrons, now known as the Trained Nurses Association of India, was inaugurated by five European Matrons resident in different parts of India, with the object of raising the standard and of laying down a code of rules for the guidance of nurses in training and afterwards. As time went on nurses' training schools increased in number and were opened in all parts of the country. At the present time there is, generally speaking, a fair amount of hospital accommodation and nursing attention in the large cities but still a great shortage in the outlying districts and villages.

11. **Dearth of Nurses.**—For many years it has been felt that the right sort of material for the training of nurses has not been forthcoming from amongst educated Indian girls, and so, in the early stages, only European and Anglo-Indian girls were trained for the nursing profession. When mission hospitals for women were first opened in India, English nurses came out to help their medical sisters to cope with all the nursing work in the hospitals; they turned their attention to the training of Indian girls. It was significant that, for a large number of years, only Christian girls applied for the privilege of initiation into a nursing career. The Hindus looked with great disfavour upon nursing and would not allow their women folk to join its ranks. Even when non-Christian girls took up professions such as medicine and teaching, the prejudice remained very strong against

nursing. This is now slowly but surely being broken down and Hindu girls of good education are offering themselves for training, but the number of Mohammedan candidates is still almost negligible. In the nurse training schools under the Madras Government the number of Indian pupil nurses is almost 50 per cent. at the present time.

12. The want of adequate facilities for the training of nurses is one of the discouraging factors, yet even where the facilities exist, the best type of woman is still lacking. Other factors for the shortage may be:

1. That in only a few hospitals is there sufficient teaching staff.
2. The bad housing accommodation provided in some institutions.
3. The long hours of duty as compared with other spheres of work.
4. The lack of recreational facilities.
5. The overcrowding of wards with patients, leading to overwork and overstrain of the nurses.
6. The present non-recognition of nursing as a profession by the Central and Provincial Governments.

There has been a tendency in the past to exploit the nurse probationer as an essential hospital worker at the expense of her education while in many hospitals reasonable accommodation, comforts and recreational facilities are still lacking.

13. It has recently been said in Europe that the "Nurses are the spinal cord of the hospital". Would that it were so in India; alas! it is not. However, during the last ten years, much improvement in nursing has been carried out. Yet very much more remains to be done before India can hope to rank her nurses alongside those of other countries of the world.

14. **Advancement of Nursing.**—It is noteworthy that since 1934 a considerable change has taken place in the outlook of the Central and Provincial Governments on the profession of nursing judging by the various Nurses and Midwives Registration Acts which have been passed and enforced. It is also being realized that as the populace are losing their prejudice and fear of entering the hospitals for treatment more attention must be given to those into whose hands the people entrust their lives. The Surgeons General and Inspectors General also are realizing that they have neither the time to give nor the knowledge of nursing detail necessary entirely to control the provincial nursing cadre as in the past years and desire the assistance of well qualified and experienced matrons to help them in their work.

15. The Inspector General of Civil Hospitals, Bihar, Patna, in his letter dated 27th April 1938 to the Trained Nurses' Association of India, wrote:—

"We are interested in the advancement of nursing in Bihar, and should be glad for information of your association. Meanwhile, Miss Tyzack, Matron of the Patna Medical College Hospital, is being associated with the administration of the nurses' work, in the Inspector General of Civil Hospital's Office."

In Madras a similar scheme is being considered and it is hoped it will come into force in the very near future.

D. Chadwick.

## 2. STATUS OF NURSES.

The question of the improvement of the status of matrons in particular and the nursing service in general has been engaging attention for some time. As their pay compares favourably with that of provincial service medical officers and they perform duties of a technical nature requiring special qualifications, thus conforming to two of the main requirements prescribed by the Government of India for the conferment of a gazetted rank, suggestions have been made that matrons working at the larger hospitals and drawing emoluments at a rate of not less than Rs. 200 p.m. should be classed as Gazetted Officers. In provinces where strong Provincial Nursing Councils exist arrangements obtain for annual and biennial inspections of hospitals by Committees with a majority of matrons. This is a useful idea and might with advantage be followed in other provinces as it is likely to obviate administrative difficulties.

.2. The Council of Medical Women in India consider that action on the following lines will go a long way towards improving the status of the nursing profession:—

- (1) The Medical profession should do everything in its power to create a greater feeling of respect in the public mind towards the Nursing profession and should insist on the need of good nursing, adequate nursing staffs in hospitals and a correct attitude towards the sister profession.
- (2) Nursing Services, consisting of well educated and well trained nurses, should be established in the Provinces from which Nursing Superintendents and Sisters could be selected for staffing large hospitals.
- (3) The status of Nursing Superintendents should be raised by giving them proper authority in their own departments.
- (4) Trained nurses with the status of gazetted officers should be appointed as Registrars to all the Provincial Nurses' Registration Councils.
- (5) All training schools for nurses should be inspected by trained nurses and a proper standard in the training schools should be insisted upon.
- (6) Properly qualified Sister-Tutors and Home Sisters should be appointed to all large training schools.
- (7) On all boards of examiners for nurses a majority of the members should be trained nurses.
- (8) The scale of pay for Nursing Superintendents, Sisters and staff nurses should be increased.
- (9) The living conditions of nurses, especially student nurses, should be improved.
- (10) Facilities for specialist training for nurses such as for theatre work, training for Sister Tutors, Home Sisters, etc., should be provided in India.

### 3. REGISTRATION OF NURSES.

#### (i) Principal provisions of the Provincial Nurses and Midwives Registration Acts.

The Madras Nurses and Midwives Act was passed in 1926 and registration commenced from February 14th, 1928, the date of its coming into force. In 1936, an amendment was passed entitling the following associations to have a seat on the Council:—

- i. The Trained Nurses Association of India.
- ii. The Nurses Auxiliary of the Christian Medical Association of India.
- iii. The Nurses Association of Madras.

Thus 7 out of 14 seats are allotted to nurses and midwives.

The Punjab Nurses Registration Act was passed in 1932. In 1935, an amendment was passed granting free registration to any nurse registered under any other Act in force in India. The Punjab Nurses and Midwives Council have recently been authorised by the Punjab Government to conduct the nurses and midwives examinations.

The United Provinces Nurses, Midwives and Health Visitors Act was passed in 1933 but has not yet been enforced.

The Bombay Nurses, Midwives and Health Visitors Act was passed in 1935, and the Council was granted reciprocity with the General Nursing Council of England and Wales in 1937.

The Bihar and Orissa Nurses and Midwives Registration Act was passed in April 1935 and came into force in June, 1935. This Act is now, due to the separation of the provinces, in force in Bihar only and it is probable that a separate Bill will be prepared for Orissa.

The Bengal Nurses and Midwives Registration Act was passed on February 27, 1934 and came into force officially in February 1936. Since the rules under the Act were not passed by the Government of Bengal until the end of 1937 registration has not yet begun. The Bengal Nurses and Midwives Council is the only one in India as yet to appoint a Nurse-Registrar.

The Central Provinces Nurses Registration Act was passed in 1936 but has not yet been put into force.

It is understood that the Government of Assam have a Nurses and Midwives Registration Bill under consideration.

2. The nurses of India have, as their ultimate objective, an all-India Nurses, Midwives and Health Visitors Act, but in the meantime it must be sufficient that the various Provincial Governments are one by one passing Registration Acts and bringing them into operation. One cannot overlook the fact that there are omissions in some of the Acts, and it is unfortunate that the number of seats allotted to nurse members on some of the Nursing Councils is less than those allotted to the medical and other members.

## (ii) Composition of Councils.

The Acts provide for the constitution of Nurses and Midwives Councils in the provinces. The composition of the councils is shown in the table below. The term of office of members other than *ex-officio* members is 8 years in the case of Madras, Bengal, United Provinces, Punjab and Bihar, while Bombay and Central Provinces provide that members of the Councils other than *ex-officio* members shall hold office for a period of 5 years, or such less period as Government may prescribe in this behalf.

Table showing composition of Nurses and Midwives Councils.

Province.	Nominated President.	Nominated Members.			Elected Members.			Total.
		Medical Personnel.	Matrons, Nurses, etc.	Others.	Medical Personnel.	Nurses, Midwives, etc.	Others.	
Madras	Surgeon General	5	...	2	...	7	...	14
Bombay	Do.	6	4	...	2	8	...	21
Bengal.	To be appointed by the Local Government.	5	4	2	2	3	...	17
United Provinces.	I. G. C. H.	5	3	1	2	4	2	18
Punjab	Do.	5	1	13	...	3	...	23
Central Provinces.	Do.	9	3	2	...	...	...	15
Bihar	Do.	7	2	3	...	2	...	15

The figures for 'Nominated Members' include '*ex-officio*' members.

## (iii) Appointment of Registrars.

The Councils have the power to appoint a Registrar, some with and others without the previous sanction of the Local Government. The Registrar acts as Secretary to the Council and in some cases as Treasurer as well. The Acts do not lay down any specific qualifications for the Registrar, but nurses themselves consider that the Registrar should be a fully qualified and experienced nurse and midwife. The Bengal Nurses and Midwives Council was the first to appoint a Nurse-Registrar and the Punjab Nurses and Midwives Council has consented to a similar measure, but the post has not yet been filled. The Madras Nurses and Midwives Council is not opposed to a Nurse Registrar but the financial position does not allow such an appointment to be made.

## (iv) Constitution of Registers.

All Nurses and Midwives Councils are required to maintain a register of Nurses, Midwives, Health Visitors, etc., and from time to time revise the register and publish it in the prescribed manner.



These registers are divided into several parts as indicated below:—

**Madras—**

1. A Register for Nurses divided into 7 parts.
2. A Register for Midwives divided into 2 parts.

The 7 divisions of the Nurses Register are:—

- “A” Register—for those nurses trained and registered in Great Britain or in approved general training schools in the Presidency of Madras.
- “B” Register—represents those trained in foreign general training schools, or in approved general training schools in India outside the Presidency of Madras.
- “C” Register—represents those nurses who have undergone general training in Madras in the vernacular language.
- “D” Register—represents nurses who have undergone training in hospitals for women and children in English language.
- “E” Register—as “D” except in vernacular language.
- “F” Register—represents male nurses trained in the English language.
- “G” Register—represents male nurses trained in the vernacular language.

The 2 divisions of the Midwives Register are:—

- (a) English.
- (b) Vernacular.

At the commencement of registration, provision was also made for the registration of the “existing” nurses during a 3-year period of grace.

**Bombay—**

1. A Register of Nurses.
2. A Register of Midwives.
3. A Register of Health Visitors.

divided into the following parts:—

- (a) General part—for female nurses.
- (b) Supplementary part—for male nurses.
- (c) Supplementary part—for nurses trained only in the nursing and care of sick women and children.
- (d) General part—Midwives.
- (e) General part—Midwives trained as Health Visitors.

**Bengal and United Provinces—**

The Council is authorised to make orders for regulating the formation, maintenance and publication of registers of nurses, midwives, assistant midwives and health visitors according to their respective qualifications. The registers will be kept in such form or forms as may be prescribed.

**Punjab and Bihar—**

The Registrar is required to maintain registers showing the name and address of each registered nurse, health visitor, midwife, nurse dai and trained dai in the province.

2. The Madras Register bears on it the names of 1,409 nurses, 2,688 midwives and 7 *dais*. The number of nurses and health visitors, etc., registered with the Punjab Nurses Registration Council is as follows:—

Nurses . . . . .	761
Health Visitors . . . . .	101
Midwives . . . . .	462
Nurse-dais . . . . .	331
Trained dais . . . . .	911
Dais . . . . .	789

With the Bombay Council the following numbers are registered:—

Nurses . . . . .	832
Male Nurses . . . . .	48
Midwives . . . . .	1,033
Health Visitors . . . . .	4

3. The number of nurses employed in the hospitals is shown in the following statement:—

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Statement showing Nurses, Midwives and Dhais employed in Hospitals etc., (1936.)

	Urban areas.							Rural areas.							Grand Total.	
	State Public.	State Special.	Local and Municipal Funds.	Private Aided.	Private Non-Aided.	Hailways.	Total.	State Public.	State Special.	Local and Municipal Funds.	Private Aided.	Private Non-Aided.	Hailways.	Total.	Men.	Women.
<b>MADRAS—</b>																
Nurses	558	...	5	32	83	2	678	6	...	3	23	63	8	108	2	786
Midwives	100	...	138	3	51	...	287	69	27	371	152	43	5	667	...	954
Dhais	...	...	13	...	4	...	17	...	...	...	4	13	...	17	...	34
<b>BOMBAY—</b>																
Nurses	356	11	200	9	53	26	648	...	...	7	1	10	...	18	12	666
Midwives	18	...	44	7	20	...	89	1	...	12	1	3	...	17	...	106
Dhais	1	...	13	...	29	1	44	...	...	7	...	8	...	15	...	59
<b>BENGAL—</b>																
Nurses	920	13	32	178	108	27	645	...	...	4	6	...	6	...	33	631
Midwives	24	...	65	19	6	...	114	...	...	19	4	3	...	26	...	140
Dhais	...	...	10	10	...	8	28	...	...	...	...	...	...	...	...	28
<b>UNITED PROVINCES—</b>																
Nurses	61	...	29	181	39	24	297	...	...	1	6	23	...	1	38	326
Midwives	1	...	43	24	9	1	74	...	...	37	11	8	...	66	4	140
Dhais	1	...	20	12	35	...	68	...	...	15	2	23	...	54	...	122
<b>PUNJAB—</b>																
Nurses	155	...	30	138	7	9	323	...	...	2	3	...	...	3	18	326
Midwives	4	...	...	10	1	12	28	...	...	...	2	...	...	2	...	30
Dhais	51	2	100	12	5	...	170	3	3	80	5	...	...	91	...	261
<b>CENTRAL PROVINCES—</b>																
Nurses	35	...	18	47	42	5	143	...	...	1	4	18	...	22	5	165
Midwives	3	...	49	11	7	...	70	...	...	6	...	...	...	7	...	77
Dhais	...	...	2	...	1	...	3	...	...	...	...	2	...	2	...	5
<b>BIHAR—</b>																
Nurses	83	...	33	42	40	8	200	32	...	7	...	13	...	52	6	252
Midwives	8	...	25	1	7	...	39	...	...	21	1	1	...	23	2	62
Dhais	1	...	26	...	29	...	53	...	...	20	1	4	...	19	9	72



4. The following are the numbers of nurses employed in Missionary Institutions.

Nurses—

European . . .	283
National . . .	781
Student Nurses . .	1,567
Total . .	<u>2,631</u>

(v) PRINTING AND PUBLICATION OF THE ANNUAL LIST.

The Acts provide for the printing and publication of lists of the names with addresses and qualifications of nurses, midwives, assistant midwives and health visitors every year or at such intervals and in such form as the Council may direct.

Any person whose name is entered in the latest of such lists is to be recognised legally as duly registered.

(vi) PRIVILEGES OR DISABILITIES OF REGISTRATION AND NON-REGISTRATION.

The Acts provide that, except with the general or special sanction of the Local Government or, in case of certain provinces, of any officer authorised by it in this behalf, no person, unless registered as a nurse, midwife, assistant midwife, or health visitor, shall hold in or in connection with any dispensary, hospital, asylum, infirmary, lying-in-hospital or maternity and child welfare centre, which is supported wholly or partially out of public funds or local funds, any appointment designated as that of Matron, Superintendent of Nursing, sister, staff nurse, nurse, midwife, assistant midwife or health visitor.

(vii) PENALTIES.

The penalty for dishonest use of certificates, procuring registration by false means and for falsification of register or certificates is a fine not exceeding

Rs. 200 in Madras.

Rs. 250 in Bombay and Central Provinces, and

Rs. 300 in Bengal, United Provinces, Punjab and Bihar.

The penalty for a person who pretends to be a registered nurse, midwife, or dai, but who is not so registered, is a fine not exceeding Rs. 50 to Rs. 100 in Madras, Rs. 100 in Bombay and Central Provinces and Rs. 100 in the case of first offence and Rs. 300 in case of a subsequent offence in the provinces of Bengal, Punjab and Bihar, while in the United Provinces the fine is Rs. 50 for first offence and Rs. 300 for a subsequent offence.

#### 4. TRAINING AND EXAMINATION.

In practically all the nurses' training schools in British India the three years' period of training for nurses has been adopted and most hospitals work very closely on the syllabus laid down by the General Nursing Council of England and Wales. This is recognised as being a very comprehensive one and is desirable for provinces having in view reciprocal registration, for their nurses, with the General Nursing Council. Where this syllabus is adopted there are two examinations. The Preliminary one can be taken at any time after the completion of one year's training, but is usually taken at the end of 18 months and the Final one on completion of three years' training.

The examinations are conducted by—

- (a) The Provincial Government Examination Board,
- (b) The Examination Board of the Provincial Nursing and Midwives Council, and
- (c) The Christian Medical Association Examination Boards.

The old system by which certificates were granted by the hospitals is now obsolete and exists only in a very few places.

2. The period of training in Midwifery for general-trained nurses is six months and for women who have not undergone nursing training 18 months in Madras and Bengal and 12 months in other provinces.

In the Madras Presidency midwifery is a compulsory subject for all nurses trained in hospitals controlled by Government and in training schools under the control of the Christian Medical Association of Southern India.

Since the Central Midwives Board, London, has recently increased the period of training for midwives to one year for trained nurses and two years for women without general nursing certificate and introduced a register of applicants for training, to be approved by the Board, and two examinations during training it is impossible for any province in India to get reciprocal registration in midwifery with the Central Midwives Board London, until very drastic changes are made in the training provided in this country.

In general it can be stated that while great improvements have been made during the past few years in the proficiency attained by Indian nurses, the syllabus and period of training cannot be considered as settled. The conditions for reciprocity with the General Nursing Council demand a standard both of preliminary education and of training which is not easily attained under existing Indian conditions. Some authorities consider that the demands for a knowledge of the basic medical services have gone too far, while others realising the difficulty of combining classes for theoretical teaching with practical nursing have advocated the establishment of pre-nursing classes, which can be taken before a probationer joins her hospital; this is a proposal worthy of serious consideration.

## 5. CONDITIONS FOR APPROVED TRAINING INSTITUTIONS FOR NURSES AND MIDWIVES IN THE BOMBAY PRESIDENCY.

The rules of the Bombay Nurses, Midwives and Health Visitors Council on this subject are so comprehensive and precise that no apology is needed for giving a brief summary of them here.

**General conditions.**—The general conditions prescribed are that any training institution in order to be approved by the Council should be housed in a building suitable for a hospital with sufficient accommodation and equipment for theoretical and practical training; be under the management of a regularly constituted governing body with such financial resources as to make due provision for its continued maintenance in an efficient manner; agree to allow inspection to be carried out by persons appointed by the Council; have all probationers under training resident either on the premises of, or appurtenant to, the institution or any other place approved by the Council; have at least one Resident Medical Officer; maintain a ratio of one nurse to five patients; arrange for lectures being given to probationers by qualified registered medical practitioners of at least 3 years' standing and having sufficient practising experience to teach the various subjects in which they are to lecture; and agree to observe all the conditions prescribed or which may be prescribed by the Council as to the engagement and training of probationers from time to time.

**Special conditions.**—No institution is approved by the Council as a complete Training School for Nurses unless the trained nursing staff is sufficient in number to give the probationers efficient training; it is in charge of a Matron who is a registered nurse and midwife capable of imparting instruction to probationers; the hospital provides experience in the four main services—Medical, Surgical, Gynaecological and Children's diseases: the total number of beds in these services may not be less than 75 and the daily average occupied not less than 60; where the work is mainly surgical about one-third of the beds must be devoted to medical work; where the work is mainly medical, about one-third of the beds must be devoted to surgical work; and there must be at least 10 beds each for Gynaecological and Children's diseases.

No institution is approved by the Council as a complete Training School for Midwives unless the trained nursing staff is sufficient in number to give the probationers efficient training; it has not less than 500 midwifery cases a year; it is in charge of a fully qualified registered nurse and midwife capable of imparting instruction to probationers; the minimum number of beds is 30 divided into (a) antenatal and waiting, (b) lying-in-beds, (c) labour beds, and (d) septic beds; it provides experience in midwifery operations in caesarian section, forceps, internal version, craniotomy and induction of labour; and it has a properly organised ante-natal clinic.

## 6. SALARIES OF NURSES IN VARIOUS PROVINCES.

There is no uniform standard of salaries and allowances throughout India at present. Each provincial Government has its own scale; to some extent the variation is due to the different cost of living but not completely so. The salaries paid in the south are low as compared with Delhi, Bengal and the Central Provinces, and this leads to a constant migration of many of the best nurses.

It needs to be remembered that the work of a nurse is particularly arduous, requires several years of study, entails both day and night duty and the non-enjoyment of holidays as in other services. The stipends of pupil nurses could in some cases be lowered but the fully qualified nurses who are expected to take responsibilities in full should be well paid.



## CHAPTER VII.

## Maternity.

A general review of the maternity service in India reveals the vast magnitude of the problem. It is doubtful if it is generally realised that even now the great majority of confinements in India are conducted by indigenous dais or midwives. For ages the dai had been the genius presiding over childbirth and her sway until recent years was undisputed. The profession is hereditary; it passes from mother to daughter. These women are, generally speaking, low in the social scale, e.g., in Madras and Bombay they belong to the "barber" caste while in North India Mohammedan women of the lower classes practise the art. They have no scientific knowledge of the mechanism of labour or of the elementary principles asepsis. In any difficulty their only remedy is force, with what disastrous consequences may be imagined. Under these conditions is it any wonder the maternal deaths in India arising out of pregnancy in 1936 numbered over 160,000?

2. The tragedy is that probably 80 per cent. of those deaths were preventable. During the recent inquiry into maternal mortality in Calcutta, Dr. Neal laid down lower standards and, as judged by them, the proportion of preventable cases in her series of 430 cases was as high as 96.3 per cent.

3. It must also be stressed that along with this wastage of life a very serious wastage of health takes place. In the annual report of the Public Health Commissioner with the Government of India for 1935 it was stated that "the percentage of women disabled as a result of pregnancy and labour may perhaps be taken as not less than 30 per cent. and in a country where nearly ten million births are registered annually, the percentage of women temporarily or permanently incapacitated must be very large". On this estimate about 3 million women are disabled temporarily or permanently every year. To the physical disabilities must also be added the loss of happiness in the home life which must result from this heavy mortality and morbidity.

4. There is a great difference between the conditions existing in Western countries and in India and it is only in large cities like Madras, Bombay, Delhi and Calcutta that serious efforts have been made to establish a connected chain of agencies concerned in maternal and infant welfare. In small towns and in a large proportion of villages, the old order still prevails.

5. Owing to lack of education in the public it is also clear the maximum benefit from the services in existence is not derived. Further the best midwifery schemes devised will be ineffective until there is a general improvement in the general health and resistance of the people. Little improvement in the mortality rate can be hoped for until the public are better educated, the economic conditions of the people are improved and the untrained and meddling indigenous dai is replaced by the

trained midwife. It is the right of every woman to have skilled attendance during pregnancy, labour and the puerperium.

6. The present review of the midwifery services in the different provinces of India reveals a very unsatisfactory state of affairs, but one should not be unduly pessimistic, for it must be remembered it is only within the last 20 years that comprehensive schemes for the care of the expectant, parturient and nursing woman have been established in Europe. In India poverty, ignorance and illiteracy are wellnigh insuperable factors to be overcome and the task is gigantic but a start has been made and in practically all the provinces attempts are being made to meet this national problem.

7. In **Madras** the object aimed at consistently has been to replace the indigenous dai by means of a superior class of midwife and this Presidency was the first to pass an Act for the registration of nurses and midwives which was intended to eliminate the untrained dai. The Madras Presidency is educationally the most advanced in India and "purdah" hardly exists, women go to hospital freely for their confinements and many educated girls have taken up nursing as a profession, so that the supply of trained midwives is much greater in Madras than in North India. In 1931 a special section of maternity and child welfare was set up in the Department of Public Health and a medical woman was appointed as Assistant Directress of Public Health. Local authorities administer their own services under the guidance of the Director of Public Health and under the control of local Health Officers assisted by specially trained women medical officers. In 1936 there were 140 centres under the various local bodies (excluding Madras city) and a cadre of 32 medical women, 27 health visitors and 307 midwives. In the Madras Presidency there are also exceptionally good facilities for institutional treatment. There are 1,168 beds available for urban and 389 for rural areas. The large hospitals have well run antenatal clinics attached to them.

8. **Bombay.**—The maternity service in the Bombay Presidency, where the difficulties of domiciliary service are considered to be exceptionally great, because of poverty and unhealthy surroundings, is tending more and more to be of an institutional type. Maternity Hospitals and Homes have been opened in considerable numbers. There are 2,436 beds available in urban centres and 199 beds in mofussil areas. These figures indicate that only one bed is available for about 54 confinements in the urban and about 3,130 confinements in rural areas. The Lady Wilson Maternity Association Dai Scheme was started to train the indigenous dais practising midwifery in the rural areas and some useful work has been done, but the supply of efficient help is inadequate to meet the great need. The Bombay Mofussil Maternity and Child Welfare Council has recently been inaugurated and has opened Welfare Centres in different parts of the Presidency, but the mass of the people are not touched.

9. **United Provinces.**—The maternity service in the United Provinces is possibly one of the most extensive in India. In addition to the institutional service which is chiefly under the aegis of the Countess of Dufferin's

fund, there is a domiciliary service under the United Provinces Branch of the Indian Red Cross Society. A medical woman is in charge of the Maternity Section and works under the control of the Director of Public Health. The maternity centres are under the management of local Red Cross Committees, but are inspected regularly by the Director of the Maternity Section. Indigeneous dais are trained at these Centres and do most of the maternity work in the Province. This work is supported partly by a grant from the Local Government and partly by the Victoria Memorial Scholarship Fund and the Indian Red Cross Society. An act for the registration of health visitors, nurses and midwives has recently been passed.

10. **Bengal** has no organised maternity and child welfare scheme in connection with the Public Health Department. The Local Government assists voluntary bodies by giving (a) grants for the training of dais and (b) grants for propaganda. In 1934 the Bengal Nurses' Act was passed for the registration of health visitors and midwives, but this Act also ignores the dais and has no penal clauses for malpractice.

*Maternity Service.—Institutional.* A certain number of beds are provided in the large mofussil hospitals and Calcutta possesses four special women's hospitals, but the number of available beds is far below the needs of the population. *Domiciliary.* The Calcutta Corporation maintains 7 maternity and child welfare clinics and 4 maternity homes.

The Provincial Branch of the Indian Red Cross Society also manages a number of welfare centres. The vast majority of Bengal women are, however, in the hands of untrained dais. The rural areas are almost entirely uncatered for. The number of deaths due to child bearing in Calcutta during 1935 was 322. The accuracy of this figure is doubtful. Dr. Neal's enquiry between June 1936 and 1937 showed that during that period there were 701 deaths directly due to child bearing. Similarly the recorded figure of maternal deaths of 16,581 in 1936 in the whole Bengal is not likely to be an underestimate. Untrained midwives, dirty surroundings, overcrowding, poor diet, ignorance and superstition are all responsible for such high mortality.

11. **Punjab.**—There is no separate Maternity Service in connection with the Public Health Department but the Punjab Government gives grants-in-aid for approved schemes for maternal welfare work and finances and maintains a Health School. The Superintendent of this School is also Inspectress of the Health Centres. In this Province there is a Registration Act for nurses, midwives and dais, but no penal clauses for malpractice are attached. The great majority of confinements are in the hands of dais, most of whom are untrained.

12. **Delhi Province.**—Institutional facilities are good in the city of Delhi as there are three very good hospitals for women and the women have become "hospital minded" as regards childbirth. The admissions to hospital have risen from 593 cases in 1922 to 3,241 cases in 1936. Efficient antenatal clinics are held in connection with all 3 hospitals. In 1936 there were 257 trained dais practising in urban areas and they

were responsible for 3,494 cases. There is no control or supervision of the dais after training and they are invariably found to revert sooner or later to their old superstitions and time-worn customs.

Medical women are in charge of the Welfare centres in both Old and New Delhi. The rural areas have practically no maternity service.

13. In the **Central Provinces and Berar** there is a Government Health School in charge of a medical woman, who is also Directress of the Maternity and Child Welfare Centres which are managed by the Indian Red Cross Society. The institutional midwifery service is very meagre even in the large towns, but there are a few fairly good hospitals for women under the Countess of Dufferin's Fund.

14. In the **North-West Frontier Province** there are two centres for the training of dais—one at Peshawar and the other at Dera Ismail Khan—both are under Government control.

15. In **Sind** the midwifery service is partly institutional and partly domiciliary. Karachi has a fairly large Dufferin hospital and several maternity homes, but in the whole of Sind there are only 539 beds available.

Health Centres have been opened in Karachi and Sukkur for the training of dais, but the work is in its infancy. There is no registration of nurses in this Province and in both urban and rural areas untrained dais practise their hereditary craft uncontrolled and unsupervised.

16. In **Bihar, Baluchistan, Central India, Orissa, and Assam**, maternity service is almost non-existent and the tackling of the problem has barely been started.

17. One point which has come out clearly from the present review of maternity welfare work is the lack of co-ordination between the work of prevention and that of cure. In some cases there appears to be actual antagonism. In those provinces where the welfare work is under the control of the Director of Public Health it has been removed almost entirely from the sphere of influence of the medical officers in charge of Dufferin and other special hospitals for women. It would seem to be a rational policy if the work were co-ordinated in each province by placing it under a medical woman who would be inspecting officer of the welfare centres and who would be also responsible for the supervision and inspection of the hospitals for women. In this way economies would be effected and efficiency would be increased as capable medical women in the various hospitals could be given the responsibility for welfare schemes which are now often in the charge of poorly trained sub-assistant surgeons and health visitors.

## 2. FACILITIES FOR TRAINING.

1. **General Practitioners.**—It is true that up to the present the general practitioners of India have been responsible for very little midwifery and therefore cannot be blamed for the high maternal mortality rate, but if

this state of affairs is changed in the future and more midwifery is undertaken by the general practitioner, the results may be serious, as the average male practitioner's knowledge of midwifery is rather limited. This is due to the fact that apart from the colleges and two or three medical schools, the training of medical students in obstetrics is poor, owing to the great difficulty that is experienced in obtaining a sufficient number of confinement cases in the teaching hospitals for the satisfactory training of male students. Also post-graduate course for general practitioners are rare, whilst facilities for specialist courses in obstetrics exist only in the cities of Madras, Calcutta and Bombay.

Apart from the Medical School for Women at Ludhiana there are no facilities for the training of medical students in domiciliary midwifery.

**2. Midwives.**—The schools for the training of midwives are far below the needs of the country. The standard of training in many of the schools is of a low order as many of the institutions are badly staffed and poorly equipped. Madras and Bombay Presidencies are the most advanced in the training of nurses and midwives.

Legislation regulating the training and registration of midwives has been passed in the Provinces of Madras, Bombay, Punjab, Delhi, United Provinces, Bengal, Bihar and Orissa, and the Central Provinces, but the working of the Acts, apart from those in Madras and Bombay, is still in the initial stages and comparatively little benefit has yet resulted from this legislation.

There seems little hope of getting rid of the dai in this country for many years to come and unless she is controlled by proper legislation little progress in the improvement of the midwifery service of India can be expected.

### 3. RESEARCH ON MATERNAL MORTALITY AND MORBIDITY.

Considerable knowledge of the diseases of childbirth is possessed by individuals but very little active research has been carried out in this field and very few articles on this subject have been published. Reliable statistical data on the incidence and causes of maternal deaths is not available in the reports of the Directors of Public Health. In view of this and since many women's hospitals keep excellent records the Council of the Women's Medical Association in India decided to collect and publish these records with a view to making the material more widely available and stimulating research. The figures from various women's hospitals throughout India for 1935-36 have been classified by Dr. M. I. Neal and published in the August issues of the Journal of the Association of Medical Women in India in 1936 and 1937.

The first reasonably complete study of Maternal Mortality was made by Dr. A. L. Mudalyar in 1931-32 at the suggestion of the Surgeon-General, Madras. The survey was financed by the Corporation of Madras.

Dr. Mudalyiar's "Report on an investigation into the causes of Maternal Mortality in Madras" was published in 1932.

2. At the Annual Conference of Research Workers in India held in 1935 proposals for the establishment of an Advisory Committee on Maternal Mortality and Morbidity were adopted. The first statistical survey under the auspices of the Indian Research Fund Association was carried out in Calcutta by Dr. M. I. Neal during 1936-37 and the report will shortly be ready for publication. Similar surveys are now in progress in Bombay under the direction of Dr. J. Jhirad and in a rural area in Bihar. These surveys are expected not only to provide data for further research on the more important specific causes of deaths, but also, data from which conclusions can be drawn and recommendations made for the improvement and expansion of existing midwifery services.

3. Anaemias associated with childbearing are second only to sepsis as a cause of maternal mortality and morbidity and it is not surprising that the major part of other researches in this field during the past 8 years has been concerned with the types, causes and treatment of anaemias of pregnancy.

4. The following are the more recently published papers:—

- |                            |      |   |
|----------------------------|------|---|
| 1. M. I. Balfour . . . . . | 1933 | Maternity Conditions and Anaemias in the Assam Tea Gardens. Jl. Assoc. Med. Women in India, Vol. 21. pp. 28/38.                             |
| 2. Lucy Wills . . . . .    | 1934 | Studies in Pernicious Anaemias of Pregnancy—Part VI. Indian Jl. of Med. Research—Vol. 21, p. 669.   |
| 3. L. E. Napier . . . . .  | 1935 | Enquiry into anaemia of women. (A short note published in the Report of the S. A. B. for the year 1st April to 31st December 1935, p. 109). |

5. The need for further statistical surveys, for research on the bacteriology of puerperal sepsis, on toxæmias of pregnancy and for further work on anaemia is unquestioned. Women's Hospitals provide abundant material but the time of the medical staffs of these hospitals is too fully taken up with routine duties to permit the work to be undertaken. There is the further difficulty that opportunities for medical women to get an insight into research methods and to develop a capacity for scientific research are almost non-existent. The Council of the Association of Medical Women in India, deeply conscious of their responsibilities in the matter, have under consideration a proposal to establish a post-graduate school and research department possibly in connection with the Dufferin Hospital in Calcutta. The inauguration of this scheme would be a tremendous stimulus to the scientific study of diseases associated with child bearing and would do much to remove the relative neglect of research on problems so vitally connected with the building up of a fitter nation.

## 6. Other recently published papers are:—

- |                                    |      |   |
|------------------------------------|------|---|
| 4. K. N. Das and P. C. Mahalanobis | 1934 | Maternity Statistics from Calcutta, 1850-1901. Sankhya: The Indian Jl. of Statistics, Vol. I, p. 215. |
| 5. C. Mehta                        | 1937 | External version for Breech Presentations. Br. Med. Jl., Vol. I, p. 706.                              |

## 4. MATERNITY HOMES OF BOMBAY.

The following note on the Maternity Homes of Bombay, which more than any other province has adopted an institutional policy, has been communicated by Dr. Sir Mangaldas V. Mehta, O.B.E., F.R.C.P.(I.), F.C.P.S., F.C.O.G., Principal Medical Officer, The Nowrosjee Wadia Maternity Hospital, Bombay.

“The position today is that in the City of Bombay there are 14 public and free institutions with 486 beds, and 8 private semi-charity institutions with 155 beds, while paying nursing homes are 61 in number with 667 beds. The total number of maternity institutions both public, private charity, with free beds, and nursing homes come to 83 with 1,308 beds. The total number of births registered during the year 1937 was 37,795; out of these 27,758 were delivered in maternity institutions in the City during 1937, i.e., a percentage of 73.4 women confining in maternity institutions out of the total birth rate of the City. I attach herewith a comparative statement since 1929 to 1937 of the total birth rate, the number of confinements in institutions and the percentage in Bombay City.

“It will thus be clearly seen to what extent institutional maternity service is organised and how it has reduced both infant and maternal mortality in Bombay City.

“The dais are practically wiped out in the City, but their great stronghold is in the rural areas. There are several other factors in favour of institutional maternity service in the City of Bombay, viz., one tenement rooms, poverty, unhealthy surroundings, breaking up of joint family system chiefly amongst the middle class Hindus and last but not least women having more faith in hospital treatment particularly the antenatal care of expectant mothers in the antenatal clinics attached practically to every maternity hospital or home.

“The Bombay Nursing Council has in this connection given a great impetus to the establishment of more maternity institutions in the urban and rural areas and insisted upon every maternity institution seeking recognition to have antenatal clinics attached to it.

“As regards the rural areas, as long as there is no adequate supply of trained midwives, inadequate funds, apathy of the District Municipalities and District Local Boards, great illiteracy amongst people with their time-worn prejudices and superstitions and last but not least the indigenous dais having a strong influence on the ignorant women, I am

of opinion that institutional maternity service would be out of place in rural areas for a long time to come, and the only remedy at present is to supply more trained midwives suitable to the local conditions and of inferior qualifications than those their sisters in large cities. This can be achieved by having two separate courses of training for midwives, one for large cities in urban areas and the other for rural areas. This question is before the Nursing Council and I trust the Council will see its way at an early date to institute two separate courses of training for midwives to supply the rural areas more trained midwives. The first thing Government should do is to have a compulsory registration of all persons practising midwifery as midwife or dai, take up on the register the practising dais by giving them elementary practical training for at least six months, subject them to an examination (practical only) and, if found successful, put them on the register; the register should be kept open for at least five years, if not ten, for these practising dais. The Lady Wilson Village Maternity Association, the Bombay Presidency Baby and Health Week Association, and the Bombay Mofussil Maternity Child Welfare and Health Council, would be of great help to achieve the object, whereby a system of perpetuating the indigenous dais would be done away with."

*Comparative Statement of births registered and those confined in the Maternity Institutions in the City of Bombay from the year 1929 to 1937.*

Year.	Beds.	Total births registered.		Number of confinements in Maternity Institutions.	Percentage of women confined in Maternity Institutions to total births.	
1929 . .	813	24,220	} Excluding still births.	14,245	59.1	} Excluding still births.
1930 . .	824	25,329		16,329	63.8	
1931 . .	871	27,204		18,237	67.0	
1932 . .	993	30,914	} Including still births.	19,633	63.1	} Including still births.
1933 . .	1,041	33,264		23,487	70.60	
1934 . .	1,073	36,089		24,635	68.3	
1935 . .	1,133	36,753		25,433	69.2	
1936 . .	1,190	38,334		27,187	70.9	
1937 . .	1,308	37,795		27,758	73.4	



## CHAPTER VIII.

## Medical Research in India.

Organized medical research in India may be said to date from 1894 when the Indian Medical Congress submitted resolutions to Government urging the establishment and endowment of a research institute. Prior to that date medical officers working on their own initiative and with limited laboratory resources had from time to time made important contributions to the knowledge of tropical diseases. Many of these studies are classical and amongst them may be cited those of Lewis on trypanosomes and filaria, Vandyke Carter on spirilla, leprosy and mycetoma, Macnamara on cholera and Fayrer on snakes and snake venoms. Officers were occasionally deputed in earlier years to study special problems, for example, D. D. Cunningham and Timothy Lewis in 1869 on public health problems such as cholera and malaria. In 1889 the Government of India extended this practice of deputing officers in connection with field inquiries on the causation and prevention of disease. Giles for example was deputed to investigate kala-azar and beri-beri, and then cholera and malaria. This practice was continued and amongst those selected for special work was W. M. Haffkine who in 1896 studied the subject of prophylactic inoculation against cholera in Bengal. Haffkine was engaged on this work when plague first broke out in Bombay and he was amongst those sent to investigate its causation and prevention. He specially took up the subject of the preparation of an anti-plague vaccine and worked at first in the temporary laboratory accommodation which was provided for him, but in 1899 the Old Government House, Parel, was taken over as the Plague Research Laboratory and here along with other workers, who were attached to the Laboratory, he continued his work.

2. The outbreak of plague drew fresh attention to the necessity for effective provision for medical research and proposals were submitted in 1899 for a central research laboratory and for local laboratories in each province. Delays arose in acceptance of the scheme but in the meantime additional officers were deputed to the Plague Research Laboratory for further investigations on plague and research there on other subjects had also developed. These workers included Bannerman, Lamb and Liston whose subsequent work is well-known. At the same time Stephens, Christophers and James had been deputed on special studies on Malaria following the work of Ronald Ross who in 1897 had made his classical discoveries and who had also been placed on special duty by the Government of India to continue his self-appointed task. Although a number of officers were at this period engaged in whole-time research work, the laboratory at Parel, which continues at the present day under the name of the Haffkine Institute, was the only permanent laboratory available for their use and the urgency for suitable centres and accommodation was apparent.

3. Prior to the development of the scheme for Central and Provincial Laboratories a scheme for the provision of Pasteur treatment in India,

which had been under consideration for some years, came to fruition and the first Pasteur Institute was established at Kasauli in the Simla Hills in 1900 with Semple as its first Director. This Institute also served as a research centre on general subjects and much effective work has been done there. Three years later the King Institute was established at Guindy, Madras, for the manufacture of calf lymph and for general bacteriological work and provided a centre at which facilities for research were available. The central laboratory was opened at Kasauli in 1906 as the Central Research Institute, Semple from the Pasteur Institute in the same station being its first Director also. The laboratory organization was extended in succeeding years by the creation of the Pasteur Institute, Coonoor, in 1907, the Pasteur Institute, Rangoon, in 1915 and the Pasteur Institute, Shillong, in 1917.

4. The question of staffing the earlier Institutes had to be considered and the small group of research workers who had been deputed for special studies could first be drawn upon for the purpose. These officers were incorporated in a cadre called the 'Bacteriological Department' which was formed by the Government of India in 1905 for permanent employment in medical research and allied duties. This department at first consisted of 18 officers only, these being employed in the Laboratories and Pasteur Institutes as they were formed or on field research work under the Government of India.

5. The increasing amount of routine work thrown on the officers of the Bacteriological Department (later called the Medical Research Department) who were appointed as Directors and Assistant Directors of the Institutes, owing to the extent to which manufacture of vaccines, sera and other biological products had to be taken up and also to the demand for assistance in routine laboratory diagnosis, resulted in these officers becoming immobilised and not sufficiently available for field work or for employment on whole-time research on important subjects which demanded investigation. This made it necessary to extend the cadre further and for this purpose the Government of India increased it by 15 officers in 1914, 2 more being added in 1915 to allow for Directors of the new Institutes in Rangoon and Shillong.

6. Unfortunately with the outbreak of War in 1914 the scheme for extended staff and extended activities could not be brought into effective practice and the War brought recruiting and research largely to a standstill for a period of six years. Research again became active after the War and while trained workers were difficult to obtain and there had been a serious hiatus in the recruiting for the Medical Research Department, the effect of which is still felt, it was possible gradually to enlarge research activities and again build up the cadre.

7. In the post-War period two new important agencies for medical research were developed. The necessity for a School of Tropical Medicine in India had long been realised and in 1920 the School was established at Calcutta largely through the efforts and enthusiasm of Leonard Rogers. The School was intended to provide training for a diploma in Tropical

Medicine and it was considered that it would also form a centre for training future medical research workers and for direct research under the professors of the different subjects who would be appointed. Amongst these were Acton and Knowles from the Medical Research Department who took up the duties of professors of Pathology and Protozoology respectively and whose subsequent work on these subjects is outstanding. The School conducts research which is financed partly from its own funds and partly from those of the Indian Research Fund Association. The importance of the School as a research centre and a centre for training workers was recognised by the Indian Research Fund Association agreeing to meet the pay of two professors for a period of years.

8. The other important centre subsequently developed was the All-India Institute of Hygiene and Public Health which was opened in 1932. At this centre also research has been provided for and has been specially active on the subjects of nutrition, malaria and cholera.

## 2. MEDICAL RESEARCH DEPARTMENT.

The Medical Research Department is open to both I. M. S. and non-I. M. S. medical officers. The cadre consists of 30 posts, 13 of which are specified and 17 non-specified, although 4 of the latter are at present in abeyance. Of the 26 effective appointments, 12\* are reserved for I. M. S. officers in India and 1 in Burma. Out of the remaining 13, 2 appointments namely those of Directors, King Institute, Guindy, Madras, and Pasteur Institute, Shillong, are also reserved for I. M. S. officers who were in civil employment on the 10th May 1928. The rest of the appointments, which are mentioned below, are open to both I. M. S. and non-I. M. S. officers:—

Assistant Directors, Haffkine Institute, Parel, Bombay	2
Assistant Director, King Institute, Guindy, Madras	1
Appointments under the Indian Research Fund Association	4
Un-specified appointments	4

Total 11

2. Officers holding un-specified posts are ordinarily attached to Provincial Institutes under the orders of the Government of India to act as understudies and to assist in the carrying out of researches financed by the Indian Research Fund Association. The authority to make appointments to specified posts is vested in the Government of India, but provincial laboratory posts are filled in consultation with the Local Governments concerned. The Indian Research Fund Association is required to employ and meet the pay and allowances of 8 officers of the Department.

*Director, Central Research Institute, Kasauli	1
Assistant Directors, Central Research Institute, Kasauli	3
Director, Haffkine Institute, Parel, Bombay	1
Director, Pasteur Institute, Coonoor	1
Director, Pasteur Institute, Kasauli	1
Under Indian Research Fund Association	4
Supernumerary Officer	1

Total 12

### 8. INDIAN RESEARCH FUND ASSOCIATION.

An important milestone in medical research in India was the creation of the Indian Research Fund Association by the Government of India in 1911. The cost of maintenance of the Central and Provincial Laboratories at the Pasteur Institutes had been met by the Central and Local Governments concerned or by the Pasteur Institute Association, and researches had been conducted at these centres on their own resources or from special grants. The cost of the extended cadre of officers of the Medical Research Department, consisting of those officers not filling special specified appointments and of the research work conducted by them both at existing laboratories and at other centres for which provision had not been made, had to be met. The formation of the Association provided a means for doing this under an elastic method of control.

2. The Government of India gave an annual grant of Rupees five lakhs to the Association and an additional sum to meet the pay of officers not filling specified appointments who would be available for whole-time research work. The Indian Research Fund Association was constituted as a Local Fund administered by the Government of India. It is now registered under the Registration of Societies Act (XXI) of 1860 with the status of a Local Fund not administered by the Government of India.

3. The affairs of the Association are managed by a Governing Body which has the following constitution:—

President.—The Hon'ble Member of the Governor-General's Executive Council in charge of the Department of Education, Health and Lands.

#### Members—

The Secretary to the Government of India in the Department of Education, Health and Lands.

The Director-General, Indian Medical Service.

The Public Health Commissioner with the Government of India.

The Director, All-India Institute of Hygiene and Public Health, Calcutta.

The Director, Central Research Institute, Kasauli.

The Director, School of Tropical Medicine, Calcutta.

The Raja Saheb of Parlakimedi.

One eminent non-medical scientist elected by the Council of the Indian Science Congress.

Two Representatives elected by the Legislative Assembly.

One Representative elected by the Council of State.

Three Representatives of Medical Faculties of Universities incorporated by law in India who have had scientific training and experience in research or in public health, elected by such Medical Faculties.

Secretary.—The Public Health Commissioner with the Government of India, and during his absence, the Deputy Public Health Commissioner with the Government of India.

4. The Governing Body appoints a Scientific Advisory Board to advise them on technical matters and on the allocation of funds to specific inquiries. The constitution of this Board has varied from time to time but it has always contained a majority of senior laboratory workers who have had experience and practical knowledge of the conduct of medical research inquiries in India.

5. Applications for grants from the Association for the financing of inquiries on definite lines may be submitted by any suitably qualified and experienced person who has the necessary facilities for carrying out the proposed investigations. These are usually required to be submitted to the Secretary, Indian Research Fund Association, by October of each year, the grants, if sanctioned, commencing from April of the following year.

6. An annual conference of Medical Research Workers is held in December which is also attended by the Public Health Officers and others interested. The results of the previous year's work are discussed at this Conference and proposals for work in the coming year are put forward. A consensus of opinion is obtained as to the suitability of each proposal for financial support by the Indian Research Fund Association. The Scientific Advisory Board, the members of which are always present at the Research Workers' Conference, subsequently considers the proposals and, within the limits of the funds available, prepares a combined budget which forms a programme of research for the following year. Allocation of funds is made by the Governing Body after detailed consideration of the Scientific Advisory Board's recommendations.

7. Although in no way restricted to any special policy with regard to medical research by the terms of its Memorandum of Association, the Indian Research Fund Association has in practice usually expended the greater proportion of its funds on investigations into the major epidemic and endemic diseases of India and on causes of inefficiency on a large scale such as malnutrition. Clinical research in medicine and surgery has been financed to a much lesser degree as also basic research not directly connected with major problems although these subjects are eligible for grants.

8. The Indian Research Fund Association depends primarily on funds provided by the Government of India. In the early years of the Association an annual Government grant of Rs. 5 lakhs enabled it to finance enquiries and to accumulate a capital of about Rs. 52 lakhs. It was this capital and the income derived from it which has helped and is helping the Association over the lean years after the year 1981-82 when the Government grant for medical research was discontinued. At the close of the financial year 1987-88 the accumulated funds of the Association will be reduced to Rs. 82½ lakhs approximately. A statement showing the annual grants from the Government of India, invested funds and interest thereon and annual budget grants of the Association for the past 12 years is attached.

Statement showing the annual grants from the Government of India to, invested funds and interests thereon and annual budget grants of, the Indian Research Fund Association for the past twelve years.

Year.	Annual grants from the Government of India.	Invested funds. (Face value).	Interest on invested funds.	Annual Budget grants.	Remarks.
	Rs.	Rs.	Rs.	Rs.	
1926-27	6,75,000	52,30,700 <sup>0</sup> (on 1-4-26)	2,11,030	8,34,416	
1927-28	6,75,000	52,30,700 (on 1-4-27)	2,11,030	12,12,654	
1928-29	7,50,000	52,30,700 (on 1-4-28)	2,11,030	12,66,722	
1929-30	7,50,000	52,30,700 (on 16-3-29)	2,11,030	10,99,963	
1930-31	7,50,000	52,30,700 (on 26-3-30)	2,13,692	11,01,800	
1931-32	7,50,000	52,30,700 (on 22-3-31)	2,10,641	11,94,770	
1932-33	1,50,000	52,30,700 (on 5-3-32)	2,30,042	8,45,460	Since 3rd February 1937, Rs. 2,00,000 have been withdrawn and Rs. 1,50,000 are to be withdrawn during the course of the current financial year.
1933-34	1,50,000	52,01,400 (on 1-3-33)	1,85,375	8,65,384	
1934-35	1,50,000	47,46,700 (on 1-3-34)	1,42,115	8,49,759	
1935-36	1,50,000	44,13,500 (on 22-1-35)	1,90,194	8,05,244	
1936-37	1,50,000	40,13,500 (on 27-1-36)	1,42,000	7,74,145	
1937-38	1,50,000	36,13,500 (on 3-2-37)	1,30,000	7,25,069	

9. The Indian Research Fund Association maintains two large organizations of a semi-permanent nature, viz., the Malaria Survey of India (now called the Malaria Institute of India) and the Nutrition Research Laboratories at Coonoor. The major importance of these subjects is considered to justify a considerable expenditure on them and the retention over a prolonged period of specially trained and experienced staff for them. A large Commission on Kala-azar was maintained during the period when this disease was seriously epidemic and research on Plague, Cholera, Leprosy and similar subjects has been heavily financed by the Association.

10. The Scientific Advisory Board appoints Advisory Committees to assist them in regard to most of the major subjects. Such Committees have been formed for Malaria, Nutrition, Cholera, Plague, Leprosy, Rabies and Tuberculosis. All work on these subjects is reviewed by the Advisory Committees and recommendations made as to future work.

11. The majority of the Inquiries under the Indian Research Fund Association are conducted at the Central and Provincial Laboratories, the School of Tropical Medicine, Calcutta, and the All-India Institute of Hygiene and Public Health, Calcutta, or at the Laboratories of the Malaria Institute or Nutrition Inquiry under the Association. Field inquiries are conducted from these centres.

12. Grants have also been given for Inquiries conducted at Medical Colleges and may be given at any suitable centre.

13. The Indian Research Fund Association maintains a library which is housed at the Central Research Institute, Kasauli, the books and journals being available for issue on loan to workers under the Association. Stores are also maintained at the same centre from which equipment may be lent to Inquiries.

#### 4. THE INDIAN JOURNAL OF MEDICAL RESEARCH AND INDIAN MEDICAL RESEARCH MEMOIRS.

The Indian Journal of Medical Research which is the official journal of the Indian Research Fund Association has been published continuously since July 1913. Four quarterly numbers are published annually approximating to 300 pages each. The Journal is edited by the Director, Central Research Institute, Kasauli, with the assistance of an Editorial Committee. Publication is not confined to workers under the Indian Research Fund Association or to members of the Medical Research Department but its pages are freely open to all contributors of articles of medical research nature dealing with work done in India which are considered to be of a suitable standard. The Journal has taken its place as one of recognized scientific value and its pages form a record of medical research in India during the last 25 years.

Material received for publication which consists of more extended contributions on special subjects which are too large for publication as articles in the Indian Journal of Medical Research is occasionally produced in the form of separate Memoirs. This Indian Medical Research Memoir series, of which 29 volumes have been published, contains many of permanent value.

#### 5. SUMMARY OF RESEARCH WORK CARRIED OUT ON SPECIAL SUBJECTS.

The field over which medical research has extended in India is a very large one and it would be difficult in a review such as this to summarise all lines of work. An outline of the work on special major subjects is contained in the notes given below.

##### \*MALARIA.

Malaria is believed to have been endemic in India from very early times. It is generally accepted that this disease constitutes the major health and

social problem in India and it is not surprising, therefore, that it should have received a large measure of attention from medical research workers in this country.

2. The modern history of malaria research in India may be said to have commenced at the close of last century with the classical investigations of the late Sir Ronald Ross which culminated in the incrimination of the mosquito as the carrier of malaria. Even before this, however, important researches were carried out in India and among these two investigations are worthy of special mention. As long ago as 1845 Surgeon-Major Dempster introduced the spleen rate as a measure of malarial endemicity and used it to map out the incidence of malaria in villages in the Punjab lying along the course of the old Jumna Canal. Workers in India also took a very prominent part in the early botanical and other work connected with the introduction and cultivation of cinchona, and with the manufacture of cinchona preparations in medicinal form. "Cinchona febrifuge" was the first preparation to be produced on a large scale. A great advance in Malaria therapy was made in 1887 when a new method of manufacturing pure quinine sulphate was discovered at the Government's Sikkim plantation. This resulted in a great reduction in the cost of quinine production all over the world.

3. Ross's discovery of the mosquito as the carrier of malaria is so well known that it is superfluous to refer to it in detail. The ready acceptance of his findings was quickly followed by the enthusiastic investigation of malaria and other tropical diseases in many parts of the world. In 1900, the Malaria Commission of the Royal Society visited India and commenced an intensive investigation of the malaria problem in the light of Ross's discovery. Profiting by their previous experience in Africa the members of this Commission which included Stephens, Christophers, and Daniels, introduced a knowledge of the technique of malaria investigation which was made readily available to all who were desirous of entering this new field of research.

4. The systematic investigation of mosquitoes received much attention and the researches of Giles on mosquitoes generally, and of James and Liston on the Indian anophelines were prominent among the pioneer investigations in this field in the world. These researches also included studies on the differentiation of anophelines in both their adult and larval stages and on the bionomics of the different species. Investigation of the efficacy of the different species of anophelines as carriers of malaria led eventually to the enunciation by Christophers of the principle of "species sanitation". This school of pioneer workers in India included, in addition to those already mentioned, Adie, Coghill, Donovan, Patton, Turkhud and others.

5. In 1908, the epidemiology of malaria in India began to receive attention. The investigations of Christophers and Bentley in the Bengal Duars, of Bentley in Bombay City, and of Christophers in the Punjab following the great malaria epidemic of 1908, were of particular importance. It became apparent from these studies that the causative factors in the production of malaria were very diverse, and that the possibilities for control-



ling malaria were very varied. The recognition of these facts led to an Imperial Malaria Conference being held in 1909, and at this and subsequent meetings the foundations of an organisation for the study and prevention of malaria in India were laid. With the formation of a Central Malaria Committee to suggest the lines on which further investigation was most urgently required and with the appointment of a Malaria Committee and a specially trained malaria research officer in almost every province in India, malaria research received a great impetus all over the country. A Central Malaria Bureau was constituted at the same time from which advice on all aspects of malaria could be obtained. A malaria journal known as *Paludism* was also published. As the result of the investigations of such special malaria officers as Adie, Bentley, Christophers, Fry, Gill, Graham, Hodgson, Horne, Ross, Perry and others the real nature of the malaria problem in India began to be realised for the first time. Unfortunately this phase of intense activity in malaria investigation in India was interrupted by the outbreak of the Great War in 1914.

6. The cessation of hostilities saw a revival of interest in malaria work in India which, at first, was chiefly restricted to the activities of the Central Malaria Bureau where attention was directed mainly to the investigation of certain basic problems. Within a few years, however, a number of special enquiries was sponsored by the Indian Research Fund Association among which may be mentioned the "Culicidae Enquiry" under Barraud, the "Anopheline Larval Enquiry" under Puri and the "Quinine and Malaria Enquiry" under Sinton. The latter was later associated with the Malaria Treatment Centre at Kasauli where for many years important researches were conducted on the therapeutic efficacy of quinine and other drugs, particularly in regard to the prevention of relapses.

7. Realisation of the need for an efficient central malaria organisation in India resulted in the inauguration, in 1926, of a central organisation (now known as the Malaria Institute of India) under the Indian Research Fund Association. The major functions of this organisation have been to act as a bureau for information and advice on malaria, to conduct researches into all branches of malariology, to co-ordinate and prepare for publication the results of these researches in a form suitable for their practical application by executive health workers, to conduct advanced courses of instruction in malariology for medical post-graduates, to maintain an up-to-date reference library on all aspects of malariology, to maintain representative mosquito collections both from India and abroad, and to undertake the investigation of special malaria problems such as have been carried out in Bombay, Calcutta, Delhi, Andaman Islands, Quetta, Sind and other parts of India. The wide field of investigation which has been covered by the workers of the Malaria Survey of India is indicated by the numerous and diverse publications which have emanated from it and which have appeared chiefly in the "Records of the Malaria Survey of India", a journal devoted to malaria which is edited by the Director of the Malaria Institute of India. The work of the Survey during the past 10 years is closely associated with the names of Sinton, Covell, Mulligan, Barraud, Puri, Macdonald, Bruce-Mayne, Hicks, Bailly, Majid, Kehar and others. A notable change in the

activities of the Survey was introduced in 1936 when the Director was appointed Officer-in-charge, Antimalaria Operations, Delhi, where an extensive anti-malaria campaign has recently been inaugurated.

8. Apart from the activities of the Malaria Institute of India a great deal of research work on malaria has been carried out in the provinces within recent years. Some of the provinces maintain their own special malaria officers. These and other workers have carried out researches on malaria which have added greatly to our knowledge of the epidemiology and other aspects of the disease. Among these may be mentioned the researches of Ramsay, of Manson, and of Rice in relation to the control of malaria in Assam; of Senior White in the prevention of malaria over the ramifications of the Bengal-Nagpur Railway; of Gill on the genesis of epidemics in the Punjab; of Clyde, Bannerjee and others in the United Provinces; of Manifold, Richmond and other army medical officers in cantonments in India; of Bentley on malaria and agriculture in Bengal; of Acton and Knowles in Calcutta; of Feegrade in Burma; of Krishnan, Rao and others in Madras; of Iyengar in Travancore; and of many other workers too numerous to mention individually. Important researches have also been conducted in India by, or with the assistance of, the International Health Division of the Rockefeller Foundation, as for example, those of Sweet and his co-workers in Mysore, and of Russell in Madras.

9. India has indeed an enviable record of accomplishment in the field of malaria investigation but much remains to be done. The realisation of the social and economic importance of this disease to the masses of India has aroused interest in the control of rural malaria. Cheap and effective methods of control must be devised and this will only be possible, in the writer's opinion, when a much fuller knowledge of the bionomics of the various anopheline vectors has been obtained.

#### CHOLERA.

As India is the main endemic home of cholera and the country has been for centuries swept at intervals by epidemic outbreaks on a very large scale this disease has naturally been the subject of much study. Prior to the discovery of the comma bacillus by Koch in 1884 the work on the subject consisted chiefly of epidemiological and clinical observations. The extensive writings of Corby, Twining, Johnson, Morehead, Macnamara and others during the nineteenth century form a record of great historical interest but in the absence of a knowledge of the true aetiology of the disease the earlier writers were naturally handicapped in their investigation on causation and spread. Subsequent to Koch's discovery Macnamara studied cholera in the light of the bacteriological facts revealed.

2. During the phase of further development in knowledge of bacteriology the outstanding contributions to the study of *Vibrio cholerae* and allied vibrios was the work of Greig in India which formed the subject of numerous publications during the years 1913 to 1918. Greig studied all aspects of the bacteriology and pathology of the subject and also the bacteriology in relation to the carrier. The epidemiology of cholera in India was subsequently studied by Russel and Sundararajan whose publications

in the form of papers and memoirs during the years 1925 to 1928 form a very complete record of the conditions in India with a careful statistical analysis which brought out many important points. Roger's work on the forecasting of cholera epidemics was also produced at this period. Other epidemiological studies were made by Saranjam Khan in the United Provinces and by Gill and Lal in the Punjab in the years from 1928 to 1930.

8. During the years 1920 to 1927 the carrier problem and the bacteriology in relation to it was investigated on a large scale by Tomb and Maifra and B. B. Brahmachari also contributed to this subject.

4. A new line of investigation on cholera was developed when d'Herelle visited India in 1928 and took up the subject of the bacteriophage in relation to the disease. His work including that in collaboration with Malone was followed by very extensive investigations on the subject by Morison and also by Asheshov and his colleagues over a prolonged period of years. All aspects of the bacteriophage in relation to the vibrio were studied and trials were carried out on the value of bacteriophage in the treatment of cholera. Field trials of the prophylactic value of bacteriophage were also conducted on a very large scale.

5. The subject of prophylactic inoculation against cholera has been specially studied by numerous workers—the properties of the vaccine and the methods for its preparation have been specially investigated at the Central Research Institute. Russell conducted a large scale trial of the relative value of parenteral oral vaccination under conditions which would yield evidence of statistical value and showed the superiority of the vaccine used in India for routine inoculation. Numerous other workers have also carried out research on different aspects of the disease.

6. A new phase of cholera research has been in progress during the last four years. The importance of cholera to India and the position which India occupies as a potential source for the dissemination of cholera to other parts of the world on account of its permanent endemic areas has been accepted as a reason for undertaking very full investigations on the subject with the object of further determining the causes of endemicity and method of spread. A series of inquiries have been in progress whose work has been co-ordinated by a Cholera Advisory Committee. In the first instance the main line of investigation has been directed towards ascertaining the characters of the vibrios obtained from cases, carriers and external sources, the vibrio being studied in relation to its source of origin and epidemiological circumstances of isolation. Investigations on these points have been in progress at the School of Tropical Medicine and the All-India Institute of Hygiene, Calcutta; the Central Research Institute, Kasauli; the Pasteur Institute, Shillong and the King Institute, Guindy. The work has involved the study of the chemical constitution of vibrios, their metabolism, biochemical reactions, phage lysis and other characters as well as the study of variation. At the same time parallel studies on the vibrios have been carried out in England by Gardner and Bruce White working under the Medical Research Council. The dried O antigens of *V. cholerae* including those of the Inaba and Ogawa types which have been prepared and studied by these workers have been the subject of extended trials in

India and it has been established that sera prepared by their use form reliable standard reagents for the diagnosis of *V. cholerae*. The work in India including the studies which have been made on vibrios other than those of O group No. I shows the necessity of separately determining the O agglutination of vibrios and indicates that the H + O sera formerly used will not give reliable information as to the nature of a strain. Many vibrios from sources in which cholera infection can be excluded are found to be H agglutinators. No vibrios of any one serological type other than O group No. I have been found to be responsible for any group of cholera cases and the inagglutinable vibrios, other than those of the rough variant of O group I often isolated from cases of clinical cholera are found to be of a very large number of different serological types. Similar vibrios have been isolated from healthy persons and external sources in widely scattered areas and where their cholera origin appears to be extremely unlikely.

7. It has also been shown that by the use of suitable methods vibrios can be isolated from practically all open water sources in India, the possible origin of vibrios isolated from human sources both in health and disease being indicated by the finding.

8. This work has cleared the ground to a very considerable extent and should facilitate the extension of the investigations to the field study of outstanding points in epidemiology which will be entered into.

#### PLAGUE.

Plague had been absent from India for two centuries when infection was introduced from China to Bombay in 1896. The existence of plague was acknowledged only reluctantly but the disease soon gained a hold and became severely epidemic. Within a few years it had spread over most of peninsular India causing a very high mortality. Apart from the fact that the *Bacillus pestis*, which had been described by Yersin in Hong Kong in 1894, was the causative organism practically nothing was known about the methods of spread of the disease and the preventive measures at first applied were based on the supposition of transmission from man to man. Owing to the particular facts of the epidemiology of the disease later ascertained, the measures adopted against the disease were completely ineffective.

2. On the outbreak of plague British, German and Russian Commissions visited India to enquire into the disease. They did this by taking voluminous evidence and carrying out some minor laboratory investigations. These Commissions did not elicit any of the essential factors in the epidemiology of plague.

3. A few workers, including Liston and Lamb who had been deputed by the Government of India had been investigating the disease in Bombay. A working commission called the Plague Research Commission was formed in Bombay in 1905, experienced bacteriologists including Martin, Rowland and Petrie coming out to India and joining the other workers there. This Commission worked under an Advisory Committee constituted in India and including representatives of the Royal Society, the Lister Institute and the India Office.

4. The Commission continued to work up to 1918 and their studies have formed the basis for our exact knowledge of the epidemiology of bubonic plague. The particular organisation adopted proved a most effective one and the Commission is regarded as a model for such investigations.

5. The association of rat and human plague had been recognised even from biblical times but the dependence of human outbreaks on rat epizootics and the exact relationship between the two had not been determined. Gautier and Raybaud and in India, Hankin, had suggested the possibility of insect transmission from rat to man but it was not until the Plague Research Commission was formed that this was proved and the factors concerned demonstrated. The credit for proving the flea transmission of plague must be largely attributed to Liston. The detailed studies of the Commission have shown the essential facts on which plague preventive measures can be based. The voluminous reports of the Commission in the *Journal of Hygiene* from 1906 to 1917 provide a wealth of information on every aspect of the disease.

\* 6. In subsequent work carried out by different observers the existence of a flea-species factor influencing the epidemiology of the disease in different areas was shown. Along with the work on the methods of transmission of plague, and in fact preboding it, was that of Haffkine on a prophylactic vaccine. This was one of the first vaccine to be used on a very large scale for the prophylaxis of a human disease. An account of the vaccine and its development has been recorded in *Indian Medical Research Memoir No. 27*. This vaccine with certain modifications is still in use in India and is relied upon as a major preventive measure.

7. **Recent research on plague.**—Plague research has continued since the disease was first introduced to India, the main centre of work being the Haffkine Institute, at which laboratory investigations have been carried out and from which field investigations have been instituted. Other field investigations have also been instituted in different parts of India.

8. **Researches at the Haffkine Institute.**—The work at the Haffkine Institute which is in progress consists of (a) further studies on plague vaccine with a view to its improvement, (b) the preparation of a therapeutic serum and (c) studies in relation to epidemiology.

(a) **Anti-plague vaccine.**—More exact methods of determining the value of the prophylactic vaccine and the comparative value of different types of vaccines have been worked out and these methods have been applied to the study of the influence of different factors on the efficacy of the vaccine. By the methods of test used, it has been indicated that a marked improvement in the vaccine is obtainable and the method of manufacture has been revised in accordance with the observations made. Work on the subject is still continuing. Comparisons have been made between the Haffkine vaccine and other vaccines and it is claimed that the Haffkine vaccine as now revised is superior to other types.

(b) **Anti-plague serum.**—This subject has been under study since 1925. Sera have been raised in different animals and their value tested in experimental animals. Trials have been carried out as to the value of the sera

in human cases of plague with encouraging results. With the diminution of the incidence of plague in India and the difficulty of obtaining sufficient numbers of cases under hospital conditions it has not been possible to obtain trials on the scale necessary to obtain full statistical evidence of the value of the serum.

(c) **Epidemiological studies.**—It had been observed by the Plague Research Commission that rats in areas where plague had been severely epidemic showed a high resistance to experimental infection while on the other hand in areas, such as Madras City, which had been free from plague, the rats were highly susceptible. An investigation has been in progress at the Haffkine Institute on the relative immunity of rats from places all over India showing varying degrees of incidence of the disease. The work has confirmed that the immunity of the rats is roughly proportionate to the degree of incidence of plague in the areas from which they are collected, and has also shown that the resistance to infection persists over a prolonged period of years. These observations suggest the existence of a factor which is probably responsible for the decline in the incidence of plague. It is possible that the occurrence of the immunity in the rodent herd may explain the epidemic cycles of plague and be responsible for its eventual disappearance in certain areas. The basis for this immunity is being studied.

9. **Cumbum Valley Enquiry.**—As a sequel to a series of rat-flea surveys of the Madras Presidency the Cumbum Valley was selected as an endemic area for the study of the "carry over" of plague, and a field unit has worked there since 1930. The most important findings are that climatic conditions in rat burrows are much more suitable for flea survival than ordinary meteorological observations would suggest, and that plague-infected starved fleas may be responsible for the recrudescence of plague after periods of as long as a month. A development of this enquiry was a field trial of hydrogen cyanide gas as a lethal agent for rats and fleas. This method of combatting plague is now well established in India. The value of rat-proof grain godowns and the disinfection of grain has also been studied. This investigation still continues on a small scale.

#### KALA-AZAR.

As pointed out by Rogers (1897) there is little doubt that the epidemic fever in Burdwan between the years 1850 and 1875 was kala-azar. The accounts of it, and its method of spread, by various contemporary observers, such as Elliot and French, could have been applied, word for word, to later epidemics after the true causation of kala-azar was known.

2. The disease was investigated in Assam in the 1890s by Rogers and Ross and, later, by Bentley. By these early workers it was considered, variously, to be a form of malaria, malaria complicated with other infections, or a disease allied to Malta fever.

3. In 1903 Leishman recorded the discovery of the parasite, now known as *Leishmania donovani*, Ross 1903, in the spleen of a soldier who

had died in 1900. Later in the same year Donovan (1903) independently found it in the spleen of living cases. In 1904 and 1905 Christophers wrote his classical descriptions of the pathology of kala-azar and in the same year the parasite was recorded by Castellani from Ceylon and Bentley from Assam, the latter observation establishing it as the cause of the dreaded kala-azar of that province. The next big step in the study of the disease was Rogers' demonstration (1904) by culture that the parasite was a flagellate. This was followed in 1907 by Patton's discovery that the parasite assumes the flagellate form in the bed-bug, indicating an insect as the probable vector and, in 1912, his clear account of the development of the various forms of the parasite in the bed bug. Mackie (1918), working in Assam was the first worker to suggest the genus *Phlebotomus* as worthy of study in connection with the transmission problem. In 1915, the tartar emetic treatment of kala-azar, first used in Europe by Cristina and Caronia was introduced into Indian practice by Rogers and was the only treatment tried, up to that time, which was of specific benefit. Between this date and 1921, the efficacy of treatment with the inorganic salts of antimony was fully established by the work of Rogers, Muir, Knowles and others.

4. The first of the serum tests for the diagnosis of kala-azar was Brahmachari's globulin precipitation test, described in 1917. In 1921 Spackman introduced for kala-azar a modification of the formal-gel test of Gaté and Papacosta, first used in syphilis. The test was further popularised by Napier. The modern treatment of kala-azar may be said to have commenced in 1922, with the introduction by Brahmachari of urea stibamine but it was the work of Shortt and Sen (1923) which established its use and opened the field of treatment by this and other organic preparations of antimony, such as Bayer 471 which was subsequently used by Napier.

5. In 1922 Brahmachari gave the first description of dermal leishmanoid and Shortt and Brahmachari (1923) gave the first description of its pathology. Fuller studies, clinical and pathological, were later made by Acton and Napier. Shortt (1923) demonstrated for the first time the presence of *L. donovani* in the urine of cases of kala-azar. In 1924 *P. argentipes* first assumed importance in connection with transmission and the sequence of events was as follows. Mackie (1915), in Assam, among other insects, undoubtedly dissected *P. argentipes* although he did not identify the insect by name. Shortt (1924) was the first specifically to record *P. argentipes* in connection with kala-azar in Assam and dissected several specimens obtained in kala-azar houses and containing mammalian blood. Knowles, Napier and Smith (1924) finally focussed attention on *P. argentipes* by showing that *L. donovani* flagellated in its gut and state that they were led to study this insect by a private communication from Sinton in 1922 pointing out the correlation in the distribution of kala-azar and *P. argentipes*. Just prior to this announcement an important landmark in research on kala-azar was the formation in 1924 of the kala-azar commission, the personnel consisting of Lieut.-Col. S. R. Christophers, I.M.S., as Director, and Major H. E. Shortt, I.M.S., and Captain P. J. Barraud as protozoologist and entomologist.

respectively. At the same time an ancillary enquiry was constituted in Calcutta consisting of Lieut.-Col. R. \*Knowles, I.M.S., Dr. L. E. Napier and members of the staff of the School of Tropical Medicine, Calcutta. The Kala-azar Commission (1925) quickly confirmed the flagellation of *L. donovani* in *P. argentipes*. In 1926, Napier published several papers on the various pentavalent compounds of antimony which were introduced after the success of urea stibamine in the treatment of kala-azar. In 1926, the first memoir on kala-azar was published recording the work of the Commission to date as well as some work outside the Commission. The most important previously unpublished papers in this memoir were as follows: "The Morphology and Life Cycle of the Parasite of Indian Kala-azar in Culture" by Christophers, Shortt & Barraud, "The Anatomy of the Sandfly *Phlebotomus argentipes*, Ann. & Brun. (Diptera) I. The Head and Mouth Parts of the Imago" by Christophers, Shortt and Barraud, "Note on a Massive Infection of the Pharynx of *Phlebotomus argentipes* with *Herpetomonas donovani*" by Shortt, Barraud and Craighead and "An Epidemiological consideration of the transmission of Kala-azar in India" by Napier. In the same year, owing to the recall of Lieut.-Col. Christophers to other duties, the Kala-azar Commission was reconstituted with Lieut.-Col. H. E. Shortt, I.M.S., as Director and Capt. P. J. Barraud and A. C. Craighead as members. Dr. R. O. A. Smith and Dr. K. V. Krishnan also joined the Commission at a later date. Shortt, Barraud and Craighead (1926) described for the first time a massive infection of the pharynx of *P. argentipes* with *L. donovani* and in the same year these workers discovered and published the technique for giving sandflies second and subsequent feeds. This important finding removed the difficulty primarily encountered in carrying out transmission experiments with sandflies.

6. The next important paper was an account of the "Life-history and morphology of *Leishmania donovani* in the sandfly, *phlebotomus argentipes* by Shortt, Barraud and Craighead (1926). This gave the first account of the full life history of the parasite of kala-azar in its insect host. The same workers later in the year described a massive infection of the buccal cavity of *P. argentipes* with *L. donovani* and, at the same time, recorded the first finding in nature of *P. argentipes* infected with *L. donovani*. In 1927, they recorded the infection of a mouse by the inoculation of the gut contents of infected sandflies thereby proving the infectivity of the forms of *L. donovani* in these insects.

7. Lloyd and Paul (1928) in an important paper described the serum changes in kala-azar and showed that there was a great increase in the total serum globulin and the euglobulin fraction and an absolute decrease in the serum albumin so that the globulin-albumin ratio is greatly raised. Shortt, D'Silva and Swaminath (1928) showed that the forms of *L. donovani* found in dermal leishmanoid underwent the same development in *P. argentipes* as forms from the peripheral blood in ordinary cases of kala-azar. Shortt, Craighead, Smith and Swaminath (1928) proved that hamsters could be infected with *L. donovani* by both the oral and conjunctival routes and the same workers later (1929) showed that infectior



was the regular consequence of giving infective material by the oral route. They also described (1928) their first series of negative transmission experiments using human volunteers which were subjected to very numerous bites by infected *P. argentipes*. In the same year Shortt, Smith, D'Silva and Swaminath recorded the definite presence of *L. donovani* in the faeces of kala-azar cases. In 1930, Shortt, Craighead, Smith and Swaminath described the infection of two hamsters, kept in close contact with other hamsters infected with kala-azar, and, in the same year these authors described their second series of negative transmission experiments with human volunteers.

8. Shortt, Smith, Swaminath and Krishnan (1931) reported the first successful transmission of kala-azar to a hamster by the bite of *P. argentipes*, a finding subsequently confirmed by Napier, Smith and Krishnan (1933). In 1932 appeared the second kala-azar memoir, recording the work of the Kala-azar Commission subsequent to the publishing of the first memoir. Shortt and Swaminath (1935) recorded the finding of *L. donovani* in the nasal mucus of cases of Indian kala-azar and (1937) established the infectivity of these by infecting a hamster by intraperitoneal inoculation.

## LEPROSY.

Until about the year 1920 there was no organised leprosy research in India. In previous years from time to time observations on leprosy had been made and published by various doctors who, among various other duties, found time to take an interest in leprosy, but the clinical material available was poor, consisting chiefly of advanced cases in leper asylums and there were no doctors engaged wholly on studying leprosy. In some laboratories attempts to culture the bacillus of leprosy had been made, but the results were very conflicting and inconclusive.

2. The impetus to organised leprosy research came through Sir Leonard Rogers in Calcutta. He had for a number of years been experimenting in the treatment of leprosy with various preparations of chaulmoogra oil. Promising results of treatment had been reported in Hawaii and Philippine Islands, and Rogers' result also were very promising.

8. Rogers was instrumental in establishing a Leprosy Research Department in the School of Tropical Medicine, Calcutta, and also in founding the British Empire Relief Association, with its Indian Council endowed by funds raised by an appeal made by Lord Reading as Viceroy. These two organisations have been greatly aided with grants for research from the Indian Research Fund Association.

4. The earlier phases of research work undertaken by Rogers and later by Muir, aimed chiefly at determining the value of various forms of treatment chiefly with preparations made from chaulmoogra oil and this involved a good deal of research in Chemistry. Good results were sometimes obtained but it soon became clear that treatment had grave limitations.

Research was then undertaken on much wider basis including epidemiological, clinical, pathological, bacteriological studies.

5. The results of treatment work attracted large numbers of cases of leprosy in the earlier phases, and thus greatly facilitated a clinical study of the disease. It was found that the milder forms of leprosy of the "neural" and "neuro-macular" types were very much more common than had previously been imagined, and it was also found by observation of such cases over a number of years that in many of them the disease was self-limiting, the signs of the disease remaining quiescent or inactive for years or permanently. Most of these cases showed no bacilli and are therefore considered not to be infectious. It became obvious that text book descriptions of leprosy as being highly infectious, always progressive and ultimately fatal were not true of most cases of leprosy in India.

6. These clinical findings were verified by studies of the incidence of leprosy in various parts of India by means of sample leprosy surveys. These surveys showed that while leprosy was many times more common in India than had ever previously been realised, between one half and two thirds of the cases were of the relatively mild type, and many of them were of little importance from the public health stand point.

7. These clinical observations carried on systematically over a long period of years and correlated with pathological and bacteriological findings, have given us a better insight into the nature of the disease and have greatly improved our knowledge of diagnosis and prognosis. We are thus enabled to diagnose the disease at a much earlier stage, to recognise a number of previously unrecognised manifestations of the disease, and to form an opinion in many cases of leprosy regarding the seriousness or otherwise of the infection and regarding the probability of the disease increasing. We can express an opinion as to whether treatment is likely to be of value or not and whether a case is infectious or likely to become infectious.

8. Epidemiological studies have already been mentioned. When first instituted and for a number of years afterwards the work was chiefly of an extensive nature, information being collected of the incidence and the forms of leprosy in large areas in a short time. More recently the need for intensive work in limited areas has become apparent and this is now being attempted with the object of studying every factor which may contribute to the cause and to the spread of leprosy.

9. As one result of the clinical, epidemiological and immunological work, it has become increasingly clear that immunity to leprosy is commonly found in adult life; but in infancy and adolescence immunity is low and exposure to infection is commonly followed by the development of the disease often in its severer forms. The problem of the control of leprosy appears to be very largely the problem of prevention and infection of young children. There are three ways of attempting this. The first is the removal of the children of infectious parents from their homes to institutions immediately after birth; the second is the removal of parents to institutions, and the separation of the parents from each other, some other provision being made for the children. The third is the

sterilization of infectious cases of leprosy so that no children may be born to them. None of these three measures is practicable on a large scale in India at the present time.

10. So far we have dealt chiefly with the results of leprosy research in the clinic and in the field. We will now mention one of the most difficult and puzzling fields of medical research, namely, laboratory research in leprosy. It is extremely doubtful if the lepra bacillus has yet been cultured artificially or whether an animal susceptible to leprosy has yet been found. One of the chief pieces of leprosy laboratory research done in Calcutta during the last fifteen years has been to attempt to apply to the problem of the culture of the leprosy bacillus the more recent advances in knowledge and technique of bacteriology. A tremendous amount of work of this kind has been done with negative or inconclusive results. From time to time encouraging results are obtained, but attempts at verification and extension of the experiment fail. This line of work is still being energetically pursued.

11. Animal experiments in human leprosy have been confined to attempts to discover an animal susceptible to leprosy or to find some way of rendering susceptible to leprosy, animals which are naturally immune. These attempts have not been successful.

12. A considerable amount of work has been done in studying rat leprosy, a disease analogous to but separate from human leprosy, and much knowledge has been gained but it is uncertain how far findings made regarding rat leprosy and its organism are applicable to human leprosy. The organism of rat leprosy has not yet been cultured.

13. This is a very brief outline of the lines of leprosy research which have been followed in India during the last twenty years or so. Most of the work has been done in connection with the School of Tropical Medicine, Calcutta, or in connection with the Indian Council of British Empire Leprosy Relief Association, with grants from the Indian Research Fund Association, but valuable work has been done by the workers in other centres which cannot be enumerated here. The work was initiated by Sir Leonard Rogers, who was later succeeded by Dr. Ernest Muir, who retired a few years ago and whose work is now carried on by Dr. John Lowe.

14. The results of this work have been widespread. There is a greatly increased interest in leprosy taken by the medical profession and by the general public. Many leprosy institutions have been changed from asylums for the disabled or dying leper to leprosy hospitals for the study and treatment of leprosy in all its stages. There are now hundreds of leprosy clinics for the diagnosis and treatment of leprosy. The leprosy problem in India is however very vast, it is to a considerable extent a social and economic problem, and it cannot be said that the problem is being adequately attacked, nor even that it is yet clear what are the best lines of attack. Much more study of leprosy in India is needed.

## RABIES AND ANTI-RABIC TREATMENT.

Since the Pasteur Institute, Kasauli, was first opened in 1900 research on rabies and prophylactic inoculation has been continuously carried out there. Other centres opened at a later period have also carried out investigations on varying scales. Semple, the first Director of the Institute in Kasauli, was responsible for the introduction in 1911 of a vaccine of different type from the Pasteur dried cord method which had been used up to that time. His experimental studies on anti-rabic inoculation led to the introduction of a dead carbolized vaccine the use of which reduced to a very large extent the risk of accidents which had occurred when the vaccine containing live virus was employed. After an extended period of study of the results of the use of the carbolized vaccine and on the basis of extensive experimental observations Harvey and Acton were able to show that the new vaccine gave at least as good or even better protection than the original Pasteur type under Indian conditions. The introduction of carbolized vaccine made possible the preparation of anti-rabic vaccine in plains stations and also the decentralization of treatment to out-centres where patients could receive treatment with the vaccine sent out from the Institute where it was manufactured.

2. At the International Conference on Rabies held at Paris in 1927 a general acceptance of the value of treatment with vaccines in which the virus was killed with carbolic acid was obtained, and the carbolized vaccine which had, on a large scale, been first employed in India, had already been adopted in certain other countries. There has since been a further extension of the use of Semple's method or modification of it and carbolized vaccines are now used to a greater extent than other types.

3. When the Pasteur Institute was first established at Kasauli about 400 cases were treated in a year in India. The number, from different centres now reaches about 40,000 and treatment on this scale is only possible by the use of methods based on researches at Kasauli and other centres.

4. Research on the pathology of rabies, accidents of treatment and other points have been carried out extensively in the Institutes in India, prominent workers on the subject besides those already mentioned being McKendrick and Cornwall.

5. A recent phase of work was that initiated by Cunningham in 1927 and carried on by his successors at Kasauli on the relative value of different methods of treatment. High value had been claimed for the other methods of Alivisatos and Hempt, but it was found that when an equivalent total of fixed virus brain substance was used carbolized vaccine was equally efficacious. It was also ascertained that the Paris strain of fixed virus was of higher value than others. On the basis of these observations anti-rabic inoculation is now carried out by means of courses of a dosage and duration fixed in relation to the risks which are assessed for each case.

6. For a number of years studies have been in progress on the value of anti-rabic serum and of various methods of treatment in which combined treatment with serum and vaccine and with combination of living and dead virus is employed. The progress in this work has been reported from time to time and the work is still continuing.

### **NUTRITION RESEARCH.**

A detailed study of medical literature during the last hundred years in India would without doubt reveal many references to diet as a possible factor in the causation of disease. Systematic nutrition research is, however, a development of the last 25 years. The earliest important work dealing specifically with the problems of nutrition in India was that of D. McCay, whose book "The Protein Element in Nutrition" was published in 1912 when McCay was professor of Physiology in the Medical College, Calcutta. The theme of this work is that the remarkable variation in the physical development of different Indian peoples can be explained in terms of diet; specifically, in terms of protein content. McCay argued that the physique of the Bengali was inferior to that of the Punjabi because the former lived largely on rice, a cereal with a low protein content, while the latter, consuming wheat and milk, had a much higher protein intake. McCay's work was written before the importance of vitamins and minerals in nutrition was understood, and unquestionably he laid undue emphasis on the protein factor. Nevertheless "The Protein Element in Nutrition", the first work to draw attention to the relation between diet and physique, may well be considered one of the classics of nutritional science. A few years earlier Braddon in Malaya made a masterly analysis of the epidemiology of beriberi, demonstrating the relation of the disease to the state of milling of rice. Braddon's work, like McCay's, was based on an assumption which later research has shown to be untenable and has been largely overlooked and forgotten. Neither has received the recognition which his work deserved.

2. The active development of nutrition research in India in the post-war period was due to R. McCarrison, to whom belongs the credit of having outlined the problem and demonstrated its importance. McCarrison's work in the field of nutrition began with "The Goitre and Cretinism Inquiry" in Kasauli in 1913 and 1914. The effect of faulty food on the thyroid gland was the main subject of the investigation. After the war, McCarrison resumed his work in Coonoor, now extending the range of his investigations to cover the pathological changes caused by defective diet in most of the organs of the body. Nutrition research in Coonoor at this period was officially designated the "Beriberi Inquiry". The "Beriberi Inquiry" continued until January 1920, when McCarrison was invalided home. He resumed work in Oxford in 1921 and 1922, and in 1922 returned to Coonoor, to undertake the "Deficiency Diseases Inquiry." This Inquiry continued at the Pasteur Institute, Coonoor, until November, 1923, when it was "axed" on the recommendation of the Incheape Committee, and its equipment and personnel dispersed. In 1925 the Coonoor Unit was re-established, this time to be known as Nutrition Research, a title it still retains.

From 1925 until the present time its history has been one of steady enlargement and progress and its personnel now includes some 15 research workers, about half of whom are medically trained, the remainder being chemists, bio-chemists, etc. The Nutrition Research Laboratories are now perhaps one of the largest institutions in the world devoted solely to research in this particular field. The present director is Dr. W. R. Aykroyd, who took charge when Sir Robert McCarrison retired in 1935.

3. The All-India Institute of Hygiene and Public Health in Calcutta includes a Department of Biochemistry and Nutrition under a full time professor (H. E. C. Wilson), and this department is an active centre of nutrition research. Research is being carried out at a number of university laboratories throughout the country, and in institutions such as the Indian Institute of Science, Bangalore, and the Indian Institute for Medical Research, Calcutta. A glance at recent numbers of the Indian Journal of Medical Research will show the great attention which is being given to nutrition research in India.

4. It is impossible to summarise in a few paragraphs the advance in knowledge of nutrition which has been achieved. Considerable attention has been given to the study of the nutritive value of foodstuffs and tables are now available giving data about the content of most common foods in calories, protein, fat, carbohydrate, calcium, phosphorus, iron and a number of vitamins. It may be claimed that with regard to knowledge of food values, India is now by no means behind other Eastern countries. Dietary surveys have been carried out in various parts of the country, and the state of nutrition of children extensively studied. Methods of improving ordinary Indian diets are being investigated by controlled human experiments; important information has been obtained by this means.

5. The study of diseases related to nutrition has progressed, keratomalacia, stomatitis and epidemic dropsy being among those investigated. It seems probable that a solution of the problem of epidemic dropsy will soon be found.

6. Attempts are being made to give practical effect to knowledge obtained by scientific research. These include the issue of suitable bulletins, posters and press notes, and the education of health officers. Nutrition research workers in India may legitimately hope that genuine improvement in public health will result from their efforts.

### GENERAL PROTOZOOLOGY.

The research work on protozoology including comparative protozoology which has been done in India is indicated in the following summary:—

Christophers (1904) recorded *Babesia canis* in Indian dogs and (1907) gave the first description of the life-cycle in the dog and in the vector *Rhipicephalus sanguineus*, the dog tick. This work done in the early days of medical protozoology must be given a high place.

2. Bentley (1905) found a parasite of the white cells of dogs. This was later also recorded by James (1905) and was probably the first species

of the genus *Hepatosoon* to be described. In the same year Christophers (1905) described another species, *H. gerbilli* and worked out its life-cycle in the rat louse *Haematopinus* sp. He also (1905) worked out the life-cycle of *H. canis* in the dog and (1907) the sexual cycle in the dog tick *R. sanguineus*. Acton and Knowles (1914) published a study of *Haemoproteus columbae*. Mackie (1914) described a flagellate infection of sandflies under the name of *Herpetomonas phlebotomi* and a plasmodial parasite of the flying fox which he named *plasmodium pteropi*. Chatterjee (1914) in cultures of tank water obtained a bodo-like flagellate on which he tried the effect of various chemicals and (1915) he showed that *Trichomonas hominis* var. *pentatrichomonas* occurred in India. Adie (1915) described the sporogony of *H. columbae* in *Lynchia maura*, traced the development of the protozoon to the sporozoite stage in the salivary glands and produced infection in apparently "clean" pigeons by the bite of the fly. Chatterjee (1917) described various flagellates as the cause of dysentery.

3. Shortt (1917) described two haemogregarines of cold blooded vertebrates to one of which he gave the name of *Haemogregarina nucleobisecans*. In both, schizogony in the internal organs is described. Knowles and Cole (1917) published a study of entamoebic cysts and Cragg (1917) gave a list of the protozoal infections found in the stools of troops from Mesopotamia, while the same author (1919) made a detailed study of *Entamoeba coli*. Boulenger (1919) recorded the various protozoa occurring in troops in Mesopotamia and Hughes (1919) identified the parasite responsible for three cases of sleeping sickness among troops in East Africa as *Trypanosoma rhodesiense*. Patton *et al* (1921) in eight papers recorded morphological and other studies on flagellates of the genera *Herpetomonas*, *Crithidia* and *Rhynchoidomonas*. Shortt (1922) reviewed the position of the genus *Haemocystidium* which he sank as synonymous with *Haemoproteus* and gave a description of two new species, *H. phyllodactyli* and *H. grahmi*. He also (1922) described two new haemogregarines, *H. procteri* and *H. percomsi*, from Persian lizards. Chatterjee (1922) gave an account of an 8-flagellate organism from the stools of a case of acute dysentery. Shortt (1923) recorded observations on the life-cycle of *H. ctenocephali* and its reactions to different environments and (1923) described a new method of obtaining a ripened haematoxylin stain for protozoological work, ready for immediate use. Knowles, Napier and Gupta (1923) studied the pH of stools in protozoal infections and found that they were on the acid side in *E. histolytica* infections and on the alkaline side in flagellate infections. Shortt (1923) published an important paper on the pathogenicity of insect flagellates to vertebrates with special reference to *H. ctenocephali* which completely traversed the work of Fantham and Porter, Franchini and Laveran on this subject. Knowles and Gupta (1924) described a species of Bodo from human saliva. Shortt and Swaminath (1924) gave an account of *Nossea adiei* in the bed bug, a parasite once mistaken for forms of *Leishmania donovani* in the salivary glands of this insect. Gupta (1926) described *Pentatrichomonas ardin delleili* as the common species, occurring in Calcutta and suggests that it has a tropical distribution.

while *Trichomonas sensu strictu* has a temperate zone habitat. Shortt (1927) described a method of cytoplasmic counterstaining with special application to protozoological technique. Rau (1926) showed the susceptibility of the jackal to *B. canis* and (1927) described the stages of *B. gibsoni* in dogs while he did some inconclusive transmission experiments with ticks of the genus *Haemaphysalis bispinosa*. Vasudevan (1927) reported a human case of sarcosporidiosis in Madras while, Gupta (1927) reported a *Trichomonas* with four free flagella from a colubrine snake. Shortt and Swaminath (1927) described the complete life-cycle of a new species of gregarine, which they named *Monocystis mackiei*, parasitic in the gut of the sandfly *Phlebotomus argentipes*. Knowles and Gupta (1928) studied infections of *T. evansi* in various laboratory animals and the effects on them of subtotal thyroidectomy. Shortt and Swaminath (1928) described three species of *Trypanosomidae*, viz., *L. hemidactyli*, *T. hemidactyli* and *T. conorhini*. Knowles (1928) published "An Introduction to Medical Protozoology" which has served as an excellent text book in the Calcutta School of Tropical Medicine. Knowles and Gupta (1928) noted the occurrence of a *Tricercomonas* of the pig and a *Trichomonas* of the porcupine and (1930) an *Entamoeba* and a flagellate, *Trinitus trionyci*, of the Indian river turtle. They also (1931) described two species of *Mastigophora* from a bull, *Embadomonas ruminantium* and *Trichomonas ruminantium*. Chopra and Chowhan (1931-1932) described the action of cobra and Russell's viper venoms on protozoal organisms. Shortt and Swaminath (1931) gave an account of the complete life history in its insect and vertebrate hosts of *T. phlebotomi* which occurs in *Hemidactylus frenatus* while the vector is *P. minutus* var. *shortti*. They show that infection of the vertebrate occurs via the oral route while the development in the insect is by a process not previously described. Knowles and Gupta (1934) record the common occurrence of *Isospora* infection in Indian cats and publish observations on *Balantidium coli* and *E. histolytica* infection of macaques. They also (1935) record three species of *Eimeria* one of *Isospora* and one of *Entamoeba* from Indian lizards. The latter is given the name of *E. flaviviridis*. Shortt (1936) has given a very detailed account of the life-history of *B. canis* in the dog tick *R. sanguineus* in which the gaps left unfilled in Christophers' description of thirty years before have been completely filled in. He also made a very detailed cytological study of the various stages in the life-cycle. Gupta (1936) studied the *Trichomonas* flagellates of the vagina and caecum of cows and described a 24-nucleate cyst of *E. coli* of the monkey. Knowles and Gupta (1936) record the protozoal parasites found in *Silenus* monkeys. Swaminath and Shortt (1937) have proved by several transmission experiments that the jackal tick *H. bispinosa* is the vector of *B. gibsoni*.

## MEDICAL ENTOMOLOGY.

Research in Medical Entomology in India dates practically from the time when Late Lt.-Col Ross discovered the developmental stages of malaria parasite in the gut of a mosquito. By 1900 Anopheline mosquitoes as



vectors of human malaria had been conclusively implicated and had attracted the attention of a number of workers, like Austin, Theobald and Giles in England and James and Liston in India. The latter two took up the study of Anopheline mosquitoes in India and wrote their classic book in 1904, dealing with the Indian Anophelines recorded up to that time. This was the first book of its kind giving systematic descriptions of the different species of all the Indian Anopheline mosquitoes, both adults and larvae. Theobald and Giles described some of the Indian species in their well known treatises dealing with the Culicidae of the world.

2. Since his first visit to India in 1901, Christophers has played a very important part in the study of the Indian Anopheline mosquitoes. From the commencement of his service in India he took up the study of the life-history, bionomics and anatomy of the different species of Anopheline mosquitoes and for nearly thirty years he carried out exhaustive research on varied problems connected with them. He published a number of memoirs dealing with the structure and systematic position of these insects and contributed a large number of papers on this subject first to "Paludism" and subsequently to the Indian Journal of Medical Research. Towards the end of his service in India he published the first part of the Culicidae volume of the "Fauna of British India", which will remain as a reference book for the Indian Anopheline mosquitoes for many years to come. He also worked on the anatomy and histology of ticks and early in his career in India published three memoirs dealing with them..

3. Besides his own work he was instrumental in starting a taxonomic study of the Culicine mosquitoes of India by Capt. P. J. Barraud, who made a complete revision of the Indian Culicines, describing a number of new species. Capt. Barraud finally wrote the second part of the Culicidae volume of the "Fauna of British India".

4. At the suggestion of Col. S. R. Christophers an inquiry on the larvae of the Indian Anopheline mosquitoes was started under Dr. Puri, who made a thorough study of the larvae of all the species occurring in India, publishing the result of his researches in the form of a memoir dealing with the inter-relationship and the structure of all the species of Anopheline mosquitoes occurring in India.

5. A number of workers, like Senior White, Strickland and Iyengar, have also been engaged in research on the bionomics and structure of the Indian Anophelines in Bengal, making an intensive study of Eastern species. They have all made very valuable contributions to our knowledge of these insects.

6. Side by side with malaria the transmission of a number of other tropical diseases had been attracting the attention of other workers in India. Though very little taxonomic work has been done on fleas in India, experiments on the transmission of plague by different species of fleas have been conducted at Bombay by various workers like Liston, Lamb, Kundhart, Taylor and Chitre, who have contributed a number of interesting papers on the subject.

7. In order to establish the mode of transmission of Kala-azar, Patton carried out a number of experiments at Guindy by feeding lice and bedbugs on cases infected with this disease. As a result of his experiments he wrote "Scientific Memoirs" on the development of *Leishmania* in the bedbug. He also carried out a systematic study of the Genus *Musca* describing a number of new species and undertook a complete revision of this genus. He and Major Cragg carried out extensive researches on the anatomy and habits of the blood-sucking Diptera and other insects. In 1913, they wrote their book on Medical Entomology, which was the first book of its kind to be published in India. Major Cragg carried out very interesting investigations and published a number of valuable papers on the anatomy and bionomics of blood-sucking flies and of *Cimex lectularius* and his untimely death has been a great loss to medical entomology.

8. Mr. Howlett (the Imperial Entomologist) started a systematic study of the biting flies of India in 1906 and published a preliminary account of them in 1907. Unfortunately his untimely death ended this work before its completion.

9. Brunetti, while working at the Indian Museum, Calcutta, published a catalogue of biting and other Diptera in 1911 and described a number of new species of biting flies in India about the same time. The latter, in collaboration with Col. Patton took up the study of the family *Muscidae* and has published a number of useful papers on this subject.

10. In order to find out the vector of Kala-azar, Awati made a survey of the biting insects of Assam in 1916, and published the results thereof in the Indian Journal of Medical Research. He also published a number of papers dealing with the bionomics of the "housefly".

11. The Kala-azar Commission, first under Col. S. R. Christophers and later under Lt. Col. H. E. Shortt, carried out exhaustive researches on the transmission of this disease in Assam and published a large number of papers some of them dealing with the bionomics and anatomy of *P. argentipes*.

12. Sandflies, as probable vectors of Kala-azar and of Oriental sore came into great prominence nearly twenty years ago, as a result of which, Lt.-Col. J. A. Sinton took up a taxonomic study of the Indian species of this genus. He published a number of papers dealing with these insects, describing a number of new species.

13. To supplement our knowledge of the biting flies of India, Puri took up the taxonomic study of the Indian *Simuliidae* along with their life history, and described a number of new species giving revised descriptions of those already described by previous writers.

14. Whereas a great deal of work on taxonomy and anatomy of different insects, connected with some human disease or the other, has been done in India, comparatively little research has been carried out on their bionomics in this country. During the last few years the lack of knowledge of the bionomics of the Indian blood-sucking and other insects, important to public health in India has been greatly felt all round. Consequently, a certain amount of work on the bionomics of mosquitoes has been carried out by various workers at the Ross Field Station for

Malaria at Karnal, at the School of Tropical Medicine at Calcutta and also at Bangalore but a great deal has yet to be done before a proper understanding of the habits of the different important insects is achieved.

### HELMINTHOLOGICAL RESEARCH.

Very little research on medical helminthology, except that done at the Calcutta School of Tropical Medicine, has been carried out in India in recent years and at this institution the primary object is to produce results of economic value.

2. One of the principal lines of research there is the continuous attempt that is being made to improve the treatment of intestinal helminthic infections especially that of hookworm. We have no facilities for the preparation of new drugs so have had to depend on other countries, and for some years a group of American workers have been employed on synthesising new compounds of possible anthelmintic value. It has always been the experience of workers in India that reliance cannot be placed on the figures of these workers in America regarding the curative effect of the new drugs when administered to Indians, so we try out these drugs ourselves.

3. Only two promising anthelmintics have been produced recently, these are tetrachlorethylene and hexylresorcinol. Thorough trial of these drugs in India has indicated that the former is probably the best drug we have for treating hookworm infection, when all points of view are taken into consideration. Hexylresorcinol was not found of much use and had the additional disadvantages of being expensive and needing rigid dietary precautions to be effective.

4. The discovery by officers of the R. A. M. 'C. in' England, that British troops are infected in India with *Cysticercus cellulosae*, with relative frequency and that this often leads to incurable and fatal epilepsy from brain involvement, is a matter of great importance. A study of the literature on *Taenia solium* and *C. cellulosae* in regard to India left the impression that this condition was not common in this country so the relatively high rate of infection in British troops is hard to explain on existing information. Funds and staff were not available for an extensive survey but inquiries showed that infected pigs are relatively common in Calcutta slaughterhouses and in those of other places, especially in Southern India, but human infection is very rarely encountered either with the adult or larval worm. Tracing back through some infected pigs killed in Calcutta to the district of their origin and examination of a few pig breeders soon revealed one case of *T. solium* infection. This is all that could be done at the time but it indicates the probability that our knowledge of the extent of *T. solium* and *C. cellulosae* infection in India is very deficient and, in view of its importance, more extended work should be carried out with the idea of introducing prophylaxis at the source.

5. Various improvements in laboratory technique have been introduced such as culturing hookworm larvae under much more natural conditions than was done before, and a much better method of isolating ascaris eggs from soil was worked out. Both these procedures will be of value to anyone working on the epidemiology of these infections.

6. A considerable amount was formerly done on the distribution and pathology of filariasis and some contributions made to our knowledge of the subject. Filariasis research is being still carried on, the principal objective being the discovery of a curative drug. Many drugs including most of the new heavy metal preparations have been tried without success, but some advance has been made in the treatment of the secondary infections common in elephantiasis, by vaccines and some of the new complex benzene derivatives. During the course of surveys two new species of microfilariae have been found, one of these *Mf. actoni* is new to science and the other *Mf. malayi* originally reported from the Dutch East Indies has been found in several parts of India. The adults of these larvae have not yet been seen.

7. Guinea worm surveys have indicated that the distribution of infection does not depend on the presence or absence of certain species of cyclops but rather on the limitation of water supply. The condition is prevalent where there are relatively few tanks in and around villages, and it is not seen where there are numerous tanks. It has also been found that if tank water reaches pH 8 or over, as it often does, cyclops will not live in it.

8. Work on the control of guinea worm has been successfully carried out in some villages in Mysore by the introduction of certain species of fish, which eat cyclops, into village tanks. Experimental work with guinea worm infection on dogs has also resulted in the finding of several adult male worms. This has never been done before and the worms will be described shortly.

9. In the course of the same research it has been found that a small proportion of the larvae differ from the majority by having a ventral spike-like process or second tail. The significance of these different larvae is not yet understood but it has been suggested the variations are sexual in character.

10. Human infection by migrating *Gnathostoma spinigerum* larvae or adults which is a fairly common condition in Siam and has been seen once or twice in China, Japan and Malaya, has been recently found four times in India. These are the first records of this worm as a human parasite in this country and as they have all been found in Bengal and all the specimens identified at one place, the Calcutta School, it is thought that the condition may be commoner than is realised. It is of some importance because the swelling caused by the worms in their migration through the tissues may involve vital organs and thus endanger life, though up to now no deaths have been reported.

### \*SNAKE VENOMS.

A large amount of study of snake venoms and the treatment of snake bite has been carried out in India. The earlier of the important investigations were those of Fayrer and Wall and D. D. Cunningham who studied the actions of the venoms of the principal poisonous snakes. Large contributions were made to the subject by Lamb in the earlier years of the present century his work being recorded in the Scientific Memoir Series No. 2. Subsequent work was carried out by Acton and Knowles between 1912 and 1914 and their observations on many points including treatment are accepted as authoritative. Antivenene is prepared at the Central Research Institute, Kasauli, against the venoms of the Cobra and Russell's vipers and the methods of its preparation and concentration are under continuous study. An inquiry on these venoms was in progress at the Institute from 1935 to 1936, and their various physiological actions, neurotoxic, haemorrhagic, coagulant and haemolytic, were studied in relation to venoms of snakes from different countries. It was found that the haemorrhagins of all viper venoms tested were homologous and that in consequence when a particular viper venom is low in *neurotoxin* and high in *haemorrhagin* content, the latter being mainly responsible for the symptoms produced a heterologous anti-viper venom serum will be of value. The studies on coagulant action of Russell's viper have resulted in the production of a stable solution for local haemostatic purposes. The chemical composition of the venom has also been determined by this Inquiry.

2. Studies on snake venoms have also been in progress at the Calcutta School of Tropical Medicine and important contributions made to the knowledge of their properties and actions.

### †PHARMACOLOGY INCLUDING INDIGENOUS DRUGS.

Systematic study of pharmacology in India was begun in 1921 when a chair in this subject was established at the Calcutta School of Tropical Medicine. Previous to this attempts were no doubt made from time to time by individual workers to study the action of well-known indigenous remedies but in many cases these were limited to sporadic observations and often uncontrolled clinical trials. Studies on Cobra venom by Acton and Knowles, and the study of indigenous anthelmintics by Caius and Mhaskar, though mainly conducted on chemical lines, were the only pharmacological researches of earlier days worthy of note.

2. Since the inception of the Calcutta School, interest has been stimulated in pharmacological research and a number of papers have emanated from laboratories all over India. The Calcutta School and the Haffkine Institute in Bombay, however, have played the major role in the progress of pharmacology and from both these centres a steady stream of papers bearing on various aspects of physiology, pharmacology and biochemistry has been published. Emphasis appears to have been laid on applied and

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†Contributed by Colonel R. N. Chopra, C.I.E., M.D., K.H.P., I.M.S.

clinical research and many of the problems studied have a direct bearing on the practical aspects of diagnosis and treatment of disease. The results of these observations have been published in the Indian Journal of Medical Research, the Indian Medical Research Memoirs, Records of Malaria Survey and the Indian Medical Gazette from time to time. We will give here brief summary of the important problems on which research has been carried out.

### *1. Researches on the pharmacology and toxicology of remedies of special importance to medical practice in India.*

One of the earliest researches undertaken in the Calcutta School was in connection with the pharmacology of the different alkaloids of the cinchona bark with a view to see whether some of these were as effective as quinine in the treatment of malaria. If the residual alkaloids after extraction of quinine could be used, the cost of treatment would be considerably reduced. A large amount of pharmacological and clinical work extending over several years was carried out on cinchonine, cinchonidine, quinine, quinidine, cupreine and hydrocupreines. The efficacy of the residual alkaloids was demonstrated and the advantages that might be gained by employing them in mass treatments were pointed out.

Emetine has been used in the treatment of dysenteries by practitioners in India and its toxic manifestations were not appreciated. An investigation into the pharmacology and toxicology of emetine was carried out and it was shown that emetine had a selective toxic effect on the parenchyma of the heart muscle. If the dosage exceeds the optimum level, toxic symptoms especially referable to the heart supervene. Great caution therefore is needed in its administration.

In view of the importance of the antimony compounds in the treatment of kala-azar, investigations into the pharmacological action of the organic derivatives of antimony were undertaken. The pentavalent compounds depress the circulation and respiration but stimulate the reticulo-endothelial tissue of the spleen, liver and bone-marrow, resulting in increased leucocytosis and phagocytosis. Further a rhythmic contraction of the spleen is induced which squeezes out and disintegrates many cells laden with *leishmania* parasites. An interesting development of this work was the discovery of a Chopra Test for the diagnosis of kala-azar. This test is easily performed, is very sensitive and renders early diagnosis of kala-azar possible in 85 per cent. of the cases. It has been of great help in the differential diagnosis of malaria and kala-azar in some of the endemic areas.

A large amount of work was done on the botanical, pharmacological, toxicological and therapeutic aspects of the Indian species of *artemesia* and *ephedras*. Excellent quality of santonin can be obtained from Indian *artemesia* growing in Kashmir. Indian *ephedras* grow in abundance in certain parts of the Himalayas and give good yield of the alkaloids. Although pseudo-ephedrine predominates in some species, others give good yield of ephedrine. It was also shown that pseudo-ephedrine is pharmacologically as active as ephedrine in many respects, is less toxic and is even a better cardiac stimulant than ephedrine.

In connection with the helminthological enquiries at the School, considerable attention was paid to the pharmacological and toxicological properties of a number of anthelmintics, chief amongst which were carbon tetrachloride, santonin and oil of chenopodium. Besides this a large volume of data based on laboratory, hospital and field work on various aspects of the anthelmintics problem was collected in the form of a book entitled "Anthelmintics in Medical and Veterinary Practice" by R. N. Chopra and Asa C. Chandler.

## *II. Researches on the venoms of Indian snakes.*

Snake venom enjoyed a great reputation in India as a very potent remedy in cardiac failure and as a general stimulant. A study of the pharmacological action of snake venoms was therefore started in 1931, and had been continued since then. Venoms from Cobra, Russell's viper (Daboia) and Echis were studied. Contrary to popular belief, the venoms do not seem to possess any stimulant action on the heart. Cobra venom in an attenuated form, however, has been found useful in relieving pain in cancer and in exerting a beneficial influence in chorea, insanity and epilepsy.

## *III. Researches on the physical properties of blood sera in health and disease.*

In order to explain many pharmacological and toxicological phenomena which arose in the course of other researches, work was undertaken to study carefully the physical and biochemical properties of blood sera in healthy individuals and in different pathological states. Much interesting and instructive data have been collected in this field and have thrown light on many hitherto unexplainable and obscure problems. In general, pathological sera show a high viscosity, low surface tension and diminished buffer action. The electrical properties also show significant changes from the normal ranges. In kala-azar, the serum proteins undergo marked changes and the viscosity rises much more than in any other disease like tuberculosis, syphilis, or leprosy.

## *IV. Researches on Indian Indigenous drugs.*

An important research undertaken was the investigation on scientific lines, of the claims of the rich materia medica of the Ayurvedic and Unani systems of medicines, which was financed by the Indian Research Fund Association.

During the last 12 years this inquiry has done a considerable amount of work which has not only received local appreciation but international recognition. The Departments of Pharmacology and Chemistry of the School are now considered an authority on all questions in connection with the chemistry, pharmacology and therapeutic uses of the Indian indigenous drugs. It will not be possible here to indicate the extensive work that has been done. Though no epoch making discoveries have been made, this inquiry has shown that only a very limited number of indigenous remedies deserve the reputation they have earned as cures and that quite a large

preparation of them are absolutely worthless and have probably crept in through tradition and folklore. On the other hand many of the pharmacopoeial drugs or allied species grown in India which could be used in the manufacture of pharmacopoeial preparations are in common use. The work done in this connection up to 1932 has been put up in a book entitled the "Indigenous Drugs of India" by R. N. Chopra. Further work will be included in the edition which is now due.

#### *V. Researches on drug addiction in India.*

That drug addition is a menace to the physical, mental and moral well-being of the individual and therefore of the whole nation is recognised today and the League of Nations have repeatedly made attempts to stop the use of habit forming drugs in all parts of the world. In India the problem of drug addiction is perhaps more widespread than in many other parts of the world. This will be evident from the fact that whereas in other civilised countries, the drug addiction rate of the population is from 0.1 to 0.2 per cent., in India, in some areas the rate may be from 1 to 3 per cent. In 1926, an inquiry was started by the Indian Research Fund Association, and a large volume of work has been done both in the laboratory as well as in the field. The drugs of addiction so far studied include opium, alcohol, cannabis indica, cocaine, chloral hydrate, etc. In 1895, a Royal Commission of experts reported that moderate indulgence in opium eating in India led to no injurious effects. This conclusion has been definitely disproved now and there is no doubt that opium eating produces in Indians deleterious actions similar to those produced in Europeans. A treatment of opium habit by administration of lecithin by the mouth and intravenous injections of glucose proved successful in producing a cure rate in 70 per cent. in a series of 200 addicts. The field studies included extensive general surveys of the extent of different drug habits in various parts of India. Opium addiction is definitely decreasing but cocaine addiction which is of comparatively recent origin shows signs of increasing. The study of drug addiction in India has revealed many interesting facts which are of importance from medical and sociological points of view.

#### *VI. Chemotherapeutic studies on anti-malarial and anti-dysenteric remedies.*

The effectiveness of a number of natural and synthetic anti-malarial remedies was tested on Indian strains of malaria and in monkeys infected with a hemoprotozoon called *Plasmodium knowlesi*. The concentration attained by atabrin in the circulating blood at different intervals of time in relation to parasite count was worked out. A new and comparatively easy method for the estimation of atabrin in small quantities of blood was devised and it was shown that the highest concentration occurs between  $\frac{1}{2}$  hour to 2 after the injection. The number of parasites diminishes markedly during the period when the concentration of the drug in the blood is highest. The same relationship does not hold good in the case of quinine and therefore it is probable that the nature of action of these two anti-malarial remedies is different, one acting directly on the parasites whereas



the other (quinine) exerting its influence through some defence mechanisms of the body. Owing to its slow excretion atebryn appears to exert a more prolonged action than quinine.

The treatment of chronic intestinal amoebiasis, presents many difficulties in the tropics and none of the treatments recommended are satisfactory. Chemotherapeutic studies were conducted both in the laboratory as well as in the hospital with the alkaloids of *Holarrhena antidysenterica* (Kurchi), an organic arsenic derivative called carbarsone, yatren and other drugs. A preparation of the total alkaloids from *H. antidysenterica* called kurchi-bismuth-iodide and an organic compound of arsenic carbarsone gave encouraging results.

#### *VII. Biological standardisation of drugs on the Indian market.*

A large number of drugs on the market were biologically assayed in the department of pharmacology and were found not to possess the therapeutic activity that they are alleged to have. The high atmospheric temperature, combined with a high degree of humidity, produces deterioration during storage. Those manufactured in India, including some of the potent compounds of arsenic and antimony, are subject to no control whatever by the State and consequently they vary a great deal in strength. In 1930, the Drug Inquiry Committee was appointed by the Government of India to go fully into the question of drug adulteration in India. This committee recommended the urgent need for the standardisation of drugs and for legislative measures to control the drug trade and industry. In the absence of any legislation the Indian market is glutted with products of inferior quality and this constitutes a serious menace to the public health. It is gratifying to note that as a result of the recommendations of this committee, the Government of India have taken steps to introduce a bill to control the import of adulterated drugs into India. A laboratory consisting of Bio-assay and Pharmaceutical sections has also been recently established under the direction of Brevet Colonel R. N. Chopra to analyse and assay the purity and potency of medicinal preparations in the Indian market. It is hoped that the provincial governments will now bring in legislation to control the manufacture of drugs on the lines recommended by the Drugs Enquiry Committee.

#### CANCER.

The extent to which Cancer prevails in India has been the subject of considerable speculation. Most writers on the subject have indulged in assertions based on little or no investigation and have tried to account for the supposed rarity of Cancer in India according to their pet theories. Mortality statistics in India except in Presidency towns are not based on proper death certificates. Even in Presidency towns the certification is often of a perfunctory and misleading nature. Death rate due to many infectious diseases, which have disappeared from most civilised countries, is still very high in India and expectation of life very low. The anemia

emaciation and cachexia characteristic alike of Cancer and many chronic infectious diseases and the acute infections, which are so often the immediate cause of death in cases of malignant disease, mask the true dimensions of Cancer mortality in India. To appreciate the size of the Cancer problem in India, an investigation was made under the auspices of the Indian Research Fund Association which utilised information available from the records of pathological units and in-patients departments of hospitals connected with medical schools and colleges throughout India and Burma. This survey covered records of 22,753 pathological Post Mortem examinations yielding 869 cases of malignant disease, which meant that one out of every 23 autopsies related to a case of malignant disease. The proportion of Cancer to Sarcoma in this series was as 4.8:1. In every province the preponderating incidence of Cancer—over 50 per cent.—was on the gastro-intestinal tract. Female genital organs came next in order, then carcinomas of the buccal cavity, breast, skin and penis.

2. The records of pathological laboratories of teaching hospitals were also consulted. Malignant disease was diagnosed in 9,982 cases. Approximately one out of every five biopsy specimens examined was diagnosed malignant. Because of the paucity of explanatory operations for diseases of the G. I. tract, cancer of this site did not occupy a prominent position in this series. The sites in order of frequency were female genitals, buccal, breast, skin, penis and G. I. tract.

3. The records of 7,93,929 in-patients from hospitals attached to medical colleges and schools were studied and 17,991 cases of malignant disease came under notice, representing a proportion of 1:44.7. One does not expect conformity in regional frequency between histological and clinical records, because the latter concern many cases of malignant disease of inaccessible sites as well. The order of frequency in regard to sites affected in cases clinically diagnosed was as follows:—Female genitals, buccal, G. I. tract, breast, penis and skin.

4. It is difficult to offer an analysis of all the sites affected, which leaves a substantial number of cases to be classified under the heading 'miscellaneous'.

5. The age of maximum incidence of Cancer in this country is at least ten years earlier than in the Western countries and Japan and in the case of cancer of the female generative organs earlier by 15—20 years. In every province including Burma, the incidence of cancer of cervix falls heaviest on Hindu women. The incidence of buccal cancer falls heavier on the male than on the female and on Muslims more than the Hindus. This form of cancer has its lowest incidence in the Punjab, where Pan chewing is not indulged in to the same extent as in other parts of India. Unhappily this habit is growing rapidly in that province as well. Penis cancer is peculiarly a disease of the uncircumsized communities and out of a total of 611 cases noted in biopsy records and 1,080 cases in clinical records only 17 cases were recorded among Mohammedans in the former series and 29 in the latter.

6. In the whole of this enquiry the aetiological role of irritation in the incidence of Cancer has stood out prominently. Whether it was the cervix

the oral cavity, the penis, skin, or the gastro-intestinal tract, the factor of irritation seems to excel all other possible causes and brings the problem of this fell disease within the scope of Preventive Medicine.

7 The following papers published as the result of this survey will afford a detailed view of the information collected:—

- (i) Malignant disease in the Punjab; Indian Medical Gazette, March 1933.
- (ii) Cancer in India; Indian Journal of Medical Research, July 1935.
- (iii) Cancer in India; Indian Journal of Medical Research, January 1937.

The final paper in connection with this survey is under preparation and will be published shortly.

8. Although this survey cannot fix decisively the relative position of Cancer amongst the causes of mortality in India, it affords sufficient evidence as to this position being not insignificant. It should at least persuade foreign writers on the subject to be less dogmatic about the rarity of this disease in India. The writer of this note believes that if vital statistics were as carefully collected in India as they are in the West, and proper allowance made for the number of individuals living per thousand at a given age, the incidence of Cancer will be found to be independent of geographical and racial variations.

## 6. HISTORY AND ACTIVITIES OF IMPORTANT INSTITUTIONS CONNECTED WITH MEDICAL RESEARCH IN INDIA.

### (i) THE CENTRAL RESEARCH INSTITUTE, KASAUJI.

When proposals were put forward in the earlier years of the present century for the establishment of a Bacteriological Department for India an essential part of the scheme was the formation of a Central Institute for Medical Research. In 1904 the Government of India with the sanction of the Secretary of State approved the proposals and work was commenced on what is now the Central Research Institute. It was decided to locate it at Kasauli in the Simla Hills, some 6,000 feet above sea level. A large bungalow and its site was adopted for the purpose, extensive additions being made to provide the necessary accommodation and the Institute was opened in 1906. The first Director was Lt.-Col. Semple, later Sir David Semple, who had established and been the Director, of the first Pasteur Institute in India in the same station.

2. It was intended that the Institute would form a centre for research and a basis from which field inquiries would be conducted and that it should also undertake the manufacture of sera and vaccines for which there was an increasing demand. The scheme for the Institute included proposals for sections dealing with bacteriology and immunity, malarial research, medical entomology, sera and vaccine manufacture and other subjects. Its functions in regard to such lines of work have varied from time

to time and the Institute has been the centre for research on a variety of medical and public health problems. Bacteriology and immunology have always been the main subjects of study. Malaria on which much work was done in the earlier years was later taken over by the Malaria Survey of India (now called the Malaria Institute of India) accommodated in the same buildings but designated as a separate organization. Work on medical entomology has been done on a large scale but conduct of research in this line has varied with the inclination and experience of successive members of the staff of the Institute.

8. The manufacture of sera and vaccine has constituted an ever growing part of the routine work of the Institute and during the War years the Institute was almost entirely devoted to the preparation of T. A. B. and cholera vaccines and later on influenza vaccine for the use of the Army. Production on an unprecedented scale was necessary for the prophylactic inoculation of troops in India, Mesopotamia, Egypt, East Africa and elsewhere. The research activities of the Institute were largely in abeyance until 1920 but when resumed much valuable work was done on malaria, entomology, dysentery, cholera, relapsing fever and other subjects.

4. The Institute conducts research work on its own resources on problems associated with the vaccine and other products issued and in addition houses inquiries financed by the Indian Research Fund Association which are carried out by its own staff or by attached workers. During the last five years an extensive basic investigation has been in progress in relation to cholera problems and a fruitful Inquiry has recently been completed on the venoms of the principal Indian snakes. This latter work has been partly in relation to the properties of the antivenene prepared against the venoms of the Indian Cobra and Russell's viper, for which the Institute is the sole source of manufacture and supply in India.

5. The Institute fulfils also the functions of a Bacteriological Laboratory for the Central Government and carries out such routine work as may be required including the testing of disinfectants for the Stores Department and other procedures. It also acts as a bureau of information and advice on medical and public health problems and its extensive specialised library is made available for the use of accredited persons.

6. The Institute houses the Library and Stores of the Indian Research Fund Association. The Director is *ex-officio* Editor of the Indian Journal of Medical Research and the Indian Medical Research Memoirs which he conducts on behalf of the Indian Research Fund Association.

7. The Central Research Institute is administered by the Director-General, Indian Medical Service, for the Department of Education, Health and Lands of the Central Government. The Director of the Institute is usually the senior member of the Medical Research Department and the permanent staff includes three other officers of the same Department. Sir David Semple, the first Director, was followed in succession by Lt.-Col. W. F. Harvey and Colonel Sir Richard Christophers. The present Director is Colonel J. Taylor, I.M.S.

## (ii) THE SCHOOL OF TROPICAL MEDICINE, CALCUTTA.

The School of Tropical Medicine is the only centre in India for post-graduate teaching in tropical diseases. The institution owes its existence to the efforts of Sir Leonard Rogers, whose work in connection with cholera, dysentery and other tropical diseases is so well known. The idea of establishing a research centre for tropical medicine in Calcutta definitely formed itself in his mind in 1910 and after working indefatigably for nearly 10 years, he achieved his object. The foundation stone of the School was laid by Lord Carmichael, the then Governor of Bengal and the institute began to function from 1921. The School has attached to it a special research hospital for tropical diseases. This was built, equipped and endowed by public subscription at a cost of Rupees 3½ lakhs and enables the workers at the School to carry on clinical research under strictly controlled conditions. This is one of the unique features of the institution and the facilities that it offers for research and investigation of obscure cases of disease are available in few other places. In the Out-patient Department attached to this Hospital patients are examined; and from among these, selection is made of those suitable for post-graduate teaching and research work.

2. The Endowment Fund which Sir Leonard Rogers raised has since 1921 frequently come to the rescue of research work at the School when official funds were not forthcoming and it stood at a sum of just over Rs. 9 lakhs. The Endowment Fund and the grants from the Indian Research Fund Association are the very core of the research activities of the School.

3. In addition to the Government of India, the Government of Bengal, the institution, with its all-India interests and importance, has received very considerable financial support from other sources, as the following figures will show.

The capital cost of the whole scheme was as follows:—

	Rs.	
Government of India . . . . .	5,00,000	= 3½ per cent.
Indian Research Fund Association . . . . .	2,00,000	= 13 „
Government of Bengal . . . . .	4,82,853	= 31 „
Endowment Fund of the School . . . . .	3,84,000	= 24 „
Total . . . . .	15,66,853	

4. The sources of income may be illustrated from the combined budget of the School and the Carmichael Hospital for Tropical Diseases for 1932-33. The figures were as follows:—

SCHOOL.		
	Rs.	
Government of Bengal . . . . .	2,80,838	= 43 per cent.
Indian Research Fund Association . . . . .	2,05,829	= 32 „
Endowment Fund of the School . . . . .	1,63,488	= 25 „
Total . . . . .	6,50,155	

## HOSPITAL.

Government of Bengal . . . . .

Rs. 1,28,051 = 100 per cent. . . . .

These figures show how very important is the financial aid received from the Indian Research Fund Association who receives very good value for the money so expended: if Simla and Kasauli are the "spiritual home" of that Association, a very large part of the valuable work which it carries out is done in Calcutta.

5. As indicated above the School serves the double purposes of post-graduate teaching and research work in Tropical diseases. Three classes are held annually, one from October to April, terminating in the examination for the Diploma of Tropical Medicine (D.T.M.); one from July to October terminating in the examination for the Licentiate of Tropical Medicine (L.T.M.), and one in conjunction with the All-India Institute of Hygiene and Public Health, lasting nine months and terminating in the examination for the Diploma of Public Health of the Calcutta University. Students in these classes come from all parts of India, and from many countries overseas such as Ceylon, Burma, America, China, Siam, Australia, New Guinea, Egypt and Kenya. The teaching staff consists of nineteen professors, assistant professors and lecturers. The following departments are in existence in the School:—(1) Department of Tropical Medicine, (2) Department of Pathology, Bacteriology and Helminthology, (3) Department of Protozoology, (4) Department of Entomology, (5) Department of Pharmacology, (6) Department of Chemistry and Physics, (7) Department of Serology and Immunology, (8) Department of Tropical Hygiene, (9) Department of Public Health Laboratory Practice, (10) Department of Tropical Surgery and (11) Department of Infectious Diseases. The research staff composed of workers under the Endowment Fund of the School and Indian Research Fund Association are 50 in number who are carrying on various investigations on medical and public health problems and also give special teaching in their own subjects.

6. The following are the special Research Departments and Inquiries:—(1) Hookworm and Helminthological Research (2) Respiratory Diseases Research, (3) Leprosy Research, (4) Bowel Diseases Research, (5) Diabetes Research, (6) Filariasis Research, (7) Indigenous Drugs Inquiry, (8) Dermatological and Mycological Inquiry, (9) Malaria Transmission Inquiry, (10) Cholera Inquiry, (11) Anaemia Inquiry, (12) Epidemic Dropsy Inquiry, (13) Drug Addiction Inquiry and (14) Medicinal Plants and Food Poisons Inquiry (financed by the Imperial Council of Agricultural Research). Besides the above the School has a large department of Radiology and a Pasteur Institute attached to it.

7. In the field of Research, the work of the School has been outstanding and has gained both local and international reputation. From the very inception of the institution, emphasis was laid on applied and clinical research and many of the problems studied have a direct bearing on the practical aspects of diagnosis and treatment of diseases. It will not be

possible within the short space of a review to mention the various contributions made by the workers of this institute but only the salient features will be alluded to.

8. Malaria being one of the most important diseases in India considerable attention has been directed to various aspects of this problem. Valuable observations on the preventive aspect of the disease have been made in the Bengal Delta, the Dooars and Assam. Systematic investigations into the problem of malaria and its treatment with anti-malaria remedies have been carried out and the School has been responsible for the discovery of ape malaria in India and its employment in testing the efficacy of anti-malarial drugs. The researches carried out, on the aetiology, diagnosis and treatment of Kala-azar have been particularly successful. The School has in a great measure been responsible for the introduction of pentavalent compounds of antimony and in reducing the incidence of this disease in certain districts of Bengal and Assam which were once the hot-beds of the disease, and have now been rendered healthy and habitable. Notable progress has been made in the treatment of dysenteries, hill diarrhoea and sprue in India. The study of cholera and investigations on its treatment with bacteriophage have met with very encouraging results. Extensive work has been carried out in connection with aetiology and treatment of leprosy. A complete hookworm survey of India and Burma has been carried out, and new methods of combating mass infections in the mill areas have been outlined. Filariasis has been studied from both preventive and curative view points with results which promise to have an important bearing on the control of this widespread disease. Though it is not yet possible to bring about a cure in the true sense of the term, the secondary complications associated with the disease are now successfully treated. Very important work has also been done on the aetiology and treatment of epidemic dropsy lathyrism, diabetes, respiratory diseases and anaemias. Important observations have been recorded in connection with spirillar diseases. It has been shown that rat-bite fever is quite a common occurrence in Calcutta and leptospiral infections are also common in these rodent. The existence of Weils' disease in man has been definitely demonstrated by workers in the School.

9. A very important research programme which has far-reaching influence on the scientific and economic aspects of Indian indigenous drugs consists in the investigation into the claims of the rich materia medica of the Ayurvedic and Unani systems of medicine on modern scientific lines. A large number of remedies of repute in the indigenous materia medica has been studied from the botanical, chemical, pharmacological, toxicological and clinical view points. The field for research in the domain of Indian indigenous drugs is a vast one and only the fringe of the problems has so far been touched. This work when completed will be of great importance from medical and agricultural points of view. An all-India Inquiry into the problems of drug addiction in India has also been carried out. The subject is of vital importance from the social, economic and health points of view and has received the recognition of the League of Nations. Another important work done is the initiation of a Biological Standardization Laboratory for the analysis of drugs on the Indian Market. Because there is no legislation in this country to prevent fraudulent manufacturers from selling worthless drugs, the Indian market is literally flooded

with cheap and useless drugs. As Chairman of the Drugs Enquiry Committee, Colonel Chopra made an all-India survey of the condition of drugs and made representations to the Government for taking immediate steps to prevent this menace to public health. It is hoped that the establishment of such a Drugs Control Laboratory by the Government of India will go a long way in preventing drug adulteration and spurious drug trade in India.

10. An exhaustive investigation into the aetiology and pathogenesis of various skin diseases was started by late Colonel Acton and is now being continued. Successful methods of treatment have been evolved for a number of skin conditions which previously resisted all treatment. The School is one of the most popular centres for treatment of skin diseases in Calcutta and patients come to attend the clinic from all parts of India.

11. Besides these, many other enquiries have been carried out and are still in progress. In 1934, an "Essay Review" was published, summarising the whole work of the School from 1920 to 1933.

12. The School is affiliated to Calcutta University but its D. T. M. and L. T. M. examinations are controlled by the Faculty of Tropical Medicine which has been set up under the Government of Bengal.

### (iii). ALL-INDIA INSTITUTE OF HYGIENE AND PUBLIC HEALTH, CALCUTTA.

**History.**—Recognising the growing public health conscience amongst a considerable section of the Indian community the expert hygienists and research workers had, for some time, advocated the establishment of an Institution for training and research in India, which should provide personnel for the progressive public health organisation of Provincial Governments and Local Bodies. They also recognised that for efficient public health work, the workers should be trained in this country where they might learn what could best be done under the climatic, social and financial conditions peculiar to this country. The credit of giving this idea a definite shape belongs to Sir Leonard Rogers. He prepared a scheme for the establishment of a School of Tropical Medicine in Calcutta and an Institute of Hygiene in Bombay, where teaching and research in the respective fields could be organised on an all-India basis. In 1920, the School of Tropical Medicine and Hygiene was opened in Calcutta which combined the functions of both the institutions. A Professorship in Hygiene was established and a course of instruction leading to the Diploma of Public Health of the Calcutta University was arranged. There were, however, obvious limitations to the scope and outlook of this arrangement, and this was fully recognised by both Major-General Sir J. D. Graham, the then Public Health Commissioner with the Government of India, and Major-General Sir John Megaw, the then Director of the School of Tropical Medicine. The provision of necessary funds was an insurmountable difficulty in the way of establishing a separate Institute of Hygiene. This was, however, overcome when the International Health Board of the Rockefeller Foundation made the munificent offer to build and equip the Institute, provided the Government of India gave the assurance that they would meet the recurring cost of staff and maintenance after the building was handed over. This offer was accepted by the Government of India.



The building was completed in 1932 and opened on behalf of H. E. the Viceroy by His Excellency Sir John Anderson, Governor of Bengal.

**2. Administrative and scientific control.**—The Government of India in the Department of Education, Health and Lands exercise administrative control through the Director-General, Indian Medical Service. The scientific control is vested in a Committee, presided over by the Hon'ble Member-in-charge of the Department. Besides four other official members three non-official members of the Governing Body of the Indian Research Fund Association are represented on the Committee. It also serves as the Recruitment and Appointments Board of the Institute.

**3. Activities.**—The Institute performs the double function of post-graduate teaching and research. There are six sections *viz.*, (1) Public Health Administration, (2) Vital Statistics and Epidemiology, (3) Biochemistry and Nutrition, (4) Malariology and Rural Hygiene, Tuberculosis and Venereal Diseases, (5) Maternity and Child Welfare, and (6) Sanitary Engineering, each being in charge of a separate professor. The professor of Public Health Administration and Hygiene is also the Director of the Institute. In 1934, when the Institute commenced its separate existence, only four sections were opened, the Maternity and Child Welfare Section, and the Sanitary Engineering Section being kept in abeyance. Realising however the importance of the former section, the Governing Body of the Countess of Dufferin's Fund came to the assistance of the authorities by lending the services of one of their senior officers to serve as Professor. The Maternity and Child Welfare Clinic in connection with this Section was organised by a voluntary association with the help of funds provided by the Countess of Dufferin's Fund. Since April 1937 the Section together with the Clinic has been taken over by the Government of India. Sanction has already been accorded to the organisation of the Sanitary Engineering Section. Besides the six sections, the Institute houses two major inquiries under the Indian Research Fund Association, as also the Central Drug Standardisation Laboratories.

**4. Teaching.**—Training is provided for courses leading to D. P. H. and D. Sc. (Public Health) of the University of Calcutta, and D. P. H. & Hy. and D. M. C. W. of the Faculty of Tropical Medicine and Hygiene of Bengal. Besides these courses, a three months' post-graduate course of instruction is offered in the various subjects to those who wish to specialise in them. Training in laboratory subjects, *viz.*, Bacteriology, Protozoology, Entomology, Helminthology is given in the School of Tropical Medicine along with the students of the Diploma in Tropical Medicine. The Director of Public Health Laboratory, Bengal, acts as Professor of Public Health Laboratory Practice. In return for these facilities provided by the Bengal Government, the Professor of Public Health Administration and Hygiene of the Institute acts as Professor of Hygiene for the School of Tropical Medicine.

When the Institute was first started, some doubt was expressed as to the wisdom of creating a big institution devoted to training of public health workers, because it was feared that the country would not absorb a large number of highly trained officers. It is gratifying to note that the demand for training is rapidly increasing. Whilst during the first two years the applications received were not sufficient to fill the 30 seats for the D. P. H. class, during the last two years the demand for admission has increased

greatly. Not only were all the available seats taken up but certain provisions had to be made for special reasons and many deserving candidates had to be refused admission. It now appears that in order to cope with the growing demand for admission it would be necessary, in the near future, to consider ways and means of substantially increasing the number of seats.

While planning the original courses, due consideration had been given to include such subjects as were of special interest to India, it is felt that further changes will have to be made to adapt the courses of training to the actual needs of the rural population amongst whom the need for public health work is the greatest. It is hoped that a definite improvement in this direction will be made next year when a rural health unit has been organised in the vicinity of Calcutta.

The number of admissions to the Diploma course in Maternity and Child Welfare is at present far from satisfactory. The enormous waste of life and suffering among mothers and infants in this country, most of which is preventable, calls for immediate and energetic action on the part of the various administrations. Lack of funds and scarcity of trained workers stand in their way. The course offered by the Institute is designed to produce highly trained officers who could organise and supervise provincial schemes in maternity and child welfare. It would appear that the present pay and prospects for trained workers are not sufficiently attractive to induce women medical practitioners to give up the more remunerative general line for public health work. Scholarships for the students have been offered by the Red Cross Society, the Army, and by Dr. Balfour, but they are not always availed of. Perhaps better response may be expected if the provincial administrations were to send their officers for training with definite assurance of employment on attractive salaries.

With regard to the special courses, the demand for training is satisfactorily increasing. A scheme has been prepared for organising a special course in tuberculosis for which there appears to be considerable demand. In the meantime the Institute has been co-operating with the King George Thanksgiving (Anti-Tuberculosis) Fund in organising a special course on tuberculosis every year.

**5. Research.**—All the sections have devoted considerable time and attention to research work in their special subjects, keeping in view the peculiar requirements of this country. It is hardly possible in a brief review to present even a sketchy resume of the investigations carried out in the Institute. However, some points of general interest are noted below.

(i) *Cholera*.—The world looks to Bengal for the solution of many unsolved problems in cholera particularly those relating to endemicity and the origin of epidemics. These problems are very complex as the characteristics of the true cholera vibrio are by no means known and no laboratory animal is available to test the pathogenicity of a given organism. Extensive research work on these problems has been carried out in co-operation with the School of Tropical Medicine, Central Research Institute, Kasauli, and other major laboratories in India. Attention was mainly directed to the study of vibrios from known sources and to recording and interpreting the actual happenings of epidemiological interest in a selected area in a highly endemic region. Statistical studies were also carried out to define as

clearly as possible the real endemic areas in Bengal and also the regions which are specially liable to extensive epidemics of the disease. Studies on the chemical structures of the vibrios and the relation of the structure to pathogenicity has formed another subject of extensive researches. Much light has been thrown on some of the obscure problems of cholera, but a great deal still remains to be done specially in regard to the basic differences between the endemic and non-endemic regions. The available methods for forecasting cholera epidemics have been scrutinised and a new method has been evolved which has given satisfactory results with regard to the Calcutta experience.

(ii) *Epidemic dropsy*.—Epidemic dropsy is one of the major problems of Bengal and other eastern provinces. This is not so much because of the mortality it causes, but because of the permanent damage to the heart, the eyes, and other organs of its numerous victims. The aetiology of the disease has been shrouded in mystery. As a result of detailed investigations of a number of epidemics, it was suspected that certain consignments of mustard oil were responsible for the outbreak of the disease. More definite evidence pointing towards the same conclusion was obtained during an outbreak at Jamshedpur and feeding experiments on human volunteers with the oil obtained from that source produced definite signs and symptoms which in the opinion of experienced physicians were identical with mild cases of epidemic dropsy. Subsequent experience in the field appears to confirm the view that certain supplies of mustard oil cause the disease. The nature and origin of the deleterious substance contained in the oil are still unknown and investigations on the subject are proceeding. Other current theories were subjected to critical examination but none of them could be supported by facts which emerged out of the investigations.

(iii) *Tuberculosis*.—Tuberculosis is a major public health problem in India today and yet very little research is being done on it. There is ample evidence to show that the problem in India differs markedly from the problem in western countries and that unless it is properly studied a satisfactory solution cannot be arrived at. Investigations have been conducted on the epidemiological, pathological and bacteriological aspects of the disease, and valuable contributions to the subject have been made. The public health aspects of the disease, specially those arising out of industries and urbanising of the population, are being investigated, and those peculiar to India have also been clarified.

(iv) *Malaria*.—The rural malaria problem in India is recognised to be one of the most stupendous and one of the most difficult to solve. The Institute has organised field centre where investigations on rural malaria are carried out. The value of various control measures suitable for employment in rural areas are being tested. Among other problems laboratory investigations on the role of the spleen and reticulo-endothelial system in immunity to malaria have been conducted and very interesting results have been obtained. Studies on the mechanism of haemolysis in blackwater fever are in progress. The results so far obtained show that probably certain unsaturated fatty acids produced as a result of altered metabolism are responsible for the haemolysis. Considerable progress in the treatment of blackwater fever has been made. Administration of ascorbic acid, glucose and cortical extract has given encouraging results.

(v) *Nutrition*.—It is being increasingly recognised that malnutrition is an important contributory cause of sickness of India's vast population. The Institute therefore is giving a good deal of its attention to the study of the problems of nutrition in India. Analysis of a large number of local food-stuffs has been carried out with a view to assessing their nutritive value. A number of nutrition surveys have been made in Calcutta and other parts of the country together with surveys of the diet actually consumed by the different sections of the community. This work has revealed a high incidence of malnutrition and a general deficiency of a good class protein and calcium in the diet. In the laboratory many problems connected with the metabolism of the vitamins and their relation to health and disease have been investigated. The relation of diet to anaemia, cataract and epidemic dropsy is also studied.

(vi) *Maternal mortality*.—In view of the alarming maternal mortality rate in India, investigation into the causes leading to deaths in pregnancy, child-birth and the puerperium have been conducted. These studies have brought out the fact that sepsis, toxæmia and anaemia of pregnancy are the most important causes of maternal deaths. Researches on the ætiology and treatment of these conditions are in progress and valuable results are expected.

#### (iv). HAFKINE INSTITUTE, BOMBAY.

The Haffkine Institute is the principal medical research laboratory of Western India and in addition acts as (a) centre for the manufacture of plague vaccine for the whole of India, (b) the provincial bacteriological laboratory for routine diagnostic work and the preparation of prophylactic vaccines other than plague vaccine for the Bombay Presidency and (c) Pasteur Institute for the Bombay Presidency and the adjoining Indian States.

2. It is the oldest research institute in India. It was started in 1896 by the Government of India under the Directorship of Dr. Waldemar Mordecai Wolf Haffkine when the great plague pandemic broke out in India. After occupying various temporary buildings, it eventually came to rest in the present magnificent building which, till 1885, was the official residence of the Governors of Bombay and was abandoned when the Government House was transferred to another site. In 1899, Haffkine, who had been preparing prophylactic vaccine in various temporary laboratories in the city, obtained permission to take over the building for the manufacture of his vaccine. It was then known as the Plague Research Laboratory and one of its principal functions was, as it is today, the manufacture of "Plague Prophylactic" and plague researches. The laboratory continued to expand and came to function as the principal centre for medical research and a diagnostic centre for the clinical requirements of Western India and so, to indicate the expansion in its functions, its name was changed in 1906 to that of the Bombay Bacteriological Laboratory. More recently owing to further expansion of its activities to include antirabic, pharmacological and biochemical research its name was again changed, in 1925, to "The Haffkine Institute" in memory of the great investigator who was its founder and its inspiration and who may be regarded as one of India's greatest benefactors.

## I. RESEARCHES.

(a) **Plague.**—Founded originally as a plague research laboratory, it has specialised in research into various problems connected with plague. It was here that Haffkine originated the technique of the preparation of his plague vaccine and later the British Plague Research Commission worked out the whole question of transmission of plague and showed by a series of masterly researches that the disease is primarily an epizootic of rats and is transmitted from them to man by the agency of rat-fleas. Researches have been continued into the epidemiology of plague to further elucidate the factors involved and the steps needed for combating epidemics of plague.

More recently work of equally far-reaching character has been carried out resulting in the development of a biological method for the standardisation of plague vaccine, and constitutes the first instance of a successful adequate standardisation of a bacterial antigen in medicine. In the past lack of such a method had led to very contradictory opinions being put forward by different workers with regard to the preparation of plague vaccine. No data were available from which it could be decided what type of vaccine was the best, and what methods should be followed for its preparation. To re-solve this difficulty work was begun to develop methods for accurately measuring the virulence of plague cultures and the selection of the most suitable test laboratory animal. This work led to the development of an exact biological method for standardisation of plague vaccine with every condition fully standardised so that the method could be employed by any worker anywhere and would yield directly comparable results. This is the first instance of successful standardisation of bacterial antigen and marks an important advance in plague work.

This advance in knowledge has had immediate practical results. It has enabled the protective power of the Haffkine plague vaccine to be raised 80 fold and more. Exact experiments show that now the Haffkine vaccine is anywhere from 8 to 100 times more potent than other plague vaccines in the market.

This method has also enabled the Institute to shed very valuable light on the relative merits of vaccines made from heat-killed cultures and those made from live avirulent cultures.

The new knowledge of the characters of *B. pestis* prompted fresh efforts at producing a curative serum against plague. The Institute has succeeded in producing a serum with which in laboratory experiments 70 to 80 percent of infected laboratory animals can be saved. Owing to lack of opportunities the value of the serum has not been put to test in the field, except for a small trial where encouraging results were obtained.

Further researches on serology, histo-pathology, chemo-therapy, epidemiology of plague etc., are in progress.

(b) **Relapsing fever.**—In 1906 the body louse was proved to be the natural carrier of relapsing fever. This successful piece of work set the seal on the observations made 20 years previously on the clinical aspects of this disease by Vandyk Carter.

(c) **Guinea-worm disease.**—Notable researches have been carried out on the nature, history and transmission of guinea-worm which was proved to be carried from one man to another by the agency of cyclops, which infect wells of this presidency. These studies have resulted in the elaboration of

a highly satisfactory operation for the removal of the adult female worm from the subcutaneous tissues and have enabled investigations to be carried out in selected villages in the Deccan with the object of destroying the water cyclops, a minute crustacean which harbours the infective stage of the guinea-worm.

(d) **Pharmacology.**—Synthetic anti-malarials like Atebrin and plasmoquine have been in use for some years but their pharmacology had not been fully worked out. Researches in this subject are in progress. A considerable amount of work on the pharmacology of indigenous drugs has also been carried out.

(e) **Nutrition.**—The biochemical department is engaged in researches in nutrition. In addition, basal metabolic rate and other normal physiological constants are being worked out for Indians.

Studies in Sprue, Schistosomiasis, Anaemia of Pregnancy and Malaria have been conducted.

## II. MANUFACTURE OF VACCINES.

(a) **Plague Vaccine.**—Since the founding of this Institute 40 years ago, 41 million doses of Haffkine Plague vaccine have been issued to all parts of India and the Middle East. The Institute is the largest producer of plague vaccine and stocks are maintained to meet demands for almost any quantity at a moment's notice.

(b) **Other vaccines.**—Large quantities of other prophylactic vaccines also are manufactured, *e.g.*, T. A. B., Meningococcal and Cholera vaccines. More than seven lakhs doses of cholera vaccine alone have been issued during the year 1937.

## III. ANTI-RABIC DEPARTMENT.

The Institute is the chief Anti-rabic centre for the Presidency. A large and increasing number of out-patients from the city of Bombay attend daily for antirabic treatment. In addition to the treatment afforded at the Institute, a number of "out-centres" have been established in different parts of the Presidency and the neighbouring Indian States.

The vaccine adopted is the carbolised fixed virus vaccine put up in different doses for treatment of five different classes of cases according to the severity and site of bite. It is stored in the cold storage and issued to out-centres as required. During the five years 1931-1935, 1,983,680 c. cs. of anti-rabic vaccine were manufactured and issued and 46,597 cases treated. Statistics show very low case mortality which may be ascribed to efficient cauterisation of wounds and to prompt and early treatment afforded at the many out-centres now established under the decentralisation scheme for treatment for rabies.

## IV. DIAGNOSTIC DEPARTMENT.

This department conducts routine bacteriological and pathological investigations for the hospitals in the Presidency employing most recent methods and modern apparatus. More than 3000 Wassermann Tests are done yearly in addition to cultural examinations of blood, faeces, sputum, urine, etc. The section of pathology is at present conducting research on the

pathology of plague in experimental animals in addition to routine sections of pathological tissues for histological examination.

#### V. SNAKE VENOM.

The Institute maintains a large number of poisonous snakes from which venom is collected for the manufacture of anti-venomous sera and the process of venom extraction is counted as one of the principal attractions to the visitors. At present the animals from which venom is extracted are Cobras and Russell's Vipers, but it is hoped that in the near future other varieties of poisonous snakes will also be tackled and attempts made for the production of curative sera against their bite.

The Institute maintains a large library with 150 current monthly and weekly journals and a collection of recent scientific publications and books to afford suitable assistance to the workers. Facilities have been afforded to private individuals for conducting research.

#### (V) PASTEUR INSTITUTE OF INDIA, KASAUJI.

The Pasteur Institute of India, Kasauli, was founded in 1893 mostly with the aid of public subscriptions and incorporated as a charitable concern in 1901. The principal objects of the Institute were:—

1. The treatment of persons suffering from injuries inflicted by rabid animals.
2. The study, diagnosis, practice and teaching of bacteriology in all its branches, especially with reference to the diseases of men, animals and plants.
3. The investigation of tropical diseases and the practical application of bacteriological methods to the prevention and cure of disease.

2. Antirabic treatment was begun on the 9th August 1900 by Major D. Semple, R.A.M.C. (later Sir David Semple) in a small building called Manor House which enlarged again and again is the building still occupied by the Institute. During the first year of its existence the Institute treated 321 patients. The popularity of the Institute is evident from the fact that 36 years later in 1936, 18,620 patients received the benefit of treatment with vaccine manufactured in this Institute. This Institute besides preparing antirabic vaccine also originally manufactured antivenene, anti-tetanic and anti-diphtheritic serum. In 1906 the latter part of its activities was transferred to the Central Research Institute, Kasauli.

3. The success of this Institute not only led to the opening of the Central Research Institute but also of other Pasteur Institutes in India at Coonoor, Shillong, Bombay, Rangoon, Calcutta and Patna.

4. Researches on rabies mainly with a view to produce a more efficient vaccine was one of the main functions of this Institute since its inception. Generous contributions towards this object were received from the Indian Research Fund Association from 1926 onwards. These researches have now made it possible to decentralize the treatment. The Institute has at present more than 140 centres in the Punjab, United Provinces, Delhi Province, North-West Frontier Province and Indian States where anti-rabic treatment is administered. Much time has therefore been gained in

starting the treatment of a patient at risk and this factor combined with the improvements made in the vaccine has resulted in a considerable diminution in the mortality rate from hydrophobia which has reached the low figure of 0.52 per cent of the treated cases.

A vaccine is also prepared at this Institute for the treatment of animals which has rapidly grown in popularity. The number of animals inoculated during 1936 was well over 1800.

5. In addition to research on rabies the Institute is at present also conducting researches on Typhus Fever with funds provided by the Indian Research Fund Association.

6. The Institute is now run on a commercial basis and though small grants are contributed by the Government of India and certain local bodies and Indian States, the bulk of the income is derived from the sale of anti-rabic vaccine.

(vi) PASTEUR INSTITUTE OF SOUTHERN INDIA, COONOR.

The establishment of the Pasteur Institute of Southern India for the treatment of persons bitten by rabid animals was rendered possible by the allotment by His Excellency the Viceroy, (the late Lord Curzon), of one lakh of rupees out of the sum placed at his disposal by Mr. Henry Phipps of the United States of America.

2. The plans of the main building and out-houses were drawn by the Government Architect, the construction was begun in 1905, and completed in 1907. The Institute was opened for the reception of patients on April 1st, 1907.

8. The present site covers an area of 12.58 acres of land. The cost of the buildings to date has been about rupees 2½ lakhs of which one lakh was contributed by Mr. Henry Phipps, Rs. 83,000 by the Government of Madras and the balance was met from revenue. In addition to the main building which contains the laboratories and the inoculation and waiting rooms for patients, there are free quarters for the indigent patients, medical staff, clerks and servants and a limited number of houses for patients who can afford to pay a small rent.

4. Ample accommodation for animals has also been provided. An extension to the original building was constructed in 1921 at a cost of Rs. 27,000. The first floor forms a library which is equipped with 3,500 volumes of scientific and medical books and journals and the ground floor an up to date room for animals. Electric installation was put up in 1914.

5. The Institute is an Association registered under the Societies Registration Act of 1860. The objects of the Society are:—

- (1) to afford treatment at the central or any branch establishment of the Society by inoculation against rabies or any other disease so far as the Society may be in a position to afford such treatment;
- (2) to spread the knowledge of such treatment and inoculation among the public by means of printed pamphlets;
- (3) to undertake research work with the ultimate object of discovering the causative agent of rabies and of elaborating a cure for the disease, with the immediate object of improving the present system of treatment, and, incidentally, to follow up any



collateral line of research which may suggest itself in the course of experimental investigations ;

(4) to publish from time to time the results of any researches which may be of import to the medical world.

6. The general management of the Association is vested in a Central Committee consisting of 55 members, 25 *ex-officio* and 30 elected.

7. The Institute is maintained by grants from the Government, contributions from the Indian States, district boards, municipalities, cantonments, railways, firms, and donations from the public. Since 1922, the main source of revenue has been the sale of anti-rabic vaccine to government, municipal, local fund, mission, railway and State hospitals in the Presidency and in the Indian States.

8. The total number of persons treated at the Institute and the centres from 1st April 1907 to 31st December 1936 was 1,86,097. Up to 1922, all persons bitten by rabid animals had to come to Coonoor for treatment. In the meantime, experiments carried out at the Institute had shown that carbolised antirabic vaccine did not suffer any appreciable loss of immunizing power in the heat of the plains during the period allowed for its transit and use. It was, therefore, decided to establish centres for treatment with the vaccine prepared and sent out by the Institute. At present, there are 223 centres in the Presidency and in the Indian States.

The present arrangements are that treatment at the Pasteur Institute is limited to persons from the Nilgiris District and to well-to-do persons from other districts who prefer to come to Coonoor for treatment at their own expense. All other persons should go to the nearest hospital in which a centre for treatment has been established.

9. Statistical figures, collected since 1922, serve to show that the results of treatment at the centres compare favourably with those obtained at the Institute. Since 1923, antirabic vaccine is being issued to Veterinary Surgeons in the Presidency and in the Indian States for the treatment of animals that had been bitten by or had come in contact with rabid animals.

10. In addition to specimens received for routine clinical and bacteriological examination, research work on rabies, malaria, kala-azar, filariasis and on entomological and other subjects has been carried out by workers at the Institute and the results have been published in the "Indian Journal of Medical Research".

11. Since 1918, accommodation has been given to the workers on nutritional research, financed by the Indian Research Fund Association.

12. The Pasteur Institute of Southern India has kept before it the need for intensive propaganda work in the rural areas of the Madras Presidency in order to acquaint the poorer classes with the importance of the prophylactic treatment which is available at the centres for those who come in contact with rabid or suspected rabid animals.

13. In March 1927, a sum of money was allocated for propaganda for the purpose of spreading information about rabies and making known to as large a number of the public as possible how and where persons bitten by rabid animals can obtain treatment. The Director of Public Health, Madras, undertook to have the work carried out by the propaganda section of his department. During 1927-28, there was a fair increase in the number of patients treated in the Presidency and this was attributed to the effective

propaganda carried out. In 1932, the Director of Public Health, Madras, undertook to have coloured posters prepared on the subject of rabies for distribution by means of the Health Department throughout the rural areas of the Presidency in which there are roughly 34,000 villages. Posters were distributed freely by the Health Staff during their tours, and lectures on rabies and antirabic treatment were also encouraged. In October 1936, at the request of the Government of Mysore, special propaganda work in connection with rabies was carried out for 16 days at the Mysore Dasara Exhibition which was visited by about 1,50,000 people from all over the Mysore State as well as from other parts of India.

14. A large number of persons bitten by rabid animals are seeking treatment now-a-days owing to the increased facilities provided by the multiplication of treatment centres and owing also to the propaganda carried out by the Public Health Department of the Government of Madras in collaboration with the Pasteur Institute of Southern India.

(vii) THE KING EDWARD VII MEMORIAL PASTEUR INSTITUTE AND MEDICAL RESEARCH INSTITUTE, SHILLONG.

The King Edward VII Memorial Pasteur Institute and Medical Research Institute, Shillong, owes its inception to a proposal from the Assam Branch of the Indian Tea Association in 1906 to build an institute for antirabic treatment in Assam. In 1909 a committee was appointed to consider the site and plans for the proposed institute. In 1910 it was decided that part of the Eastern Bengal and Assam King Edward VII Memorial Fund should be devoted to the construction of the Institute provided it was also made a centre for teaching medical research and for study of local diseases. The foundation stone was laid by the Hon'ble Sir Archdale Earle, K.C.I.E., Chief Commissioner of Assam on the 4th November, 1915, and the Institute was opened on 5th January 1917.

The Pasteur Institute now functions—

- (a) as a general clinic laboratory for the Province,
- (b) as a centre for antirabic treatment for the Province,
- (c) as a laboratory for the manufacture of cholera and typhoid vaccines, and cholera-dysentery bacteriophage,
- (d) as a centre for research on cholera, dysentery, malaria and other diseases of public health importance, and
- (e) as a training centre for workers in the field of malaria and other diseases in the field.

**Antirabic treatment.**—About 28,300 patients have up to date been treated in the Institute and its out-centres with antirabic vaccine prepared by the Institute. In 1928 the policy of decentralisation of treatment was adopted, and out-centres were established in various places in the Province, the treatment at these centres being the same as that adopted at the Institute. There are at present 21 Government and 39 private centres.

**Vaccine Department.**—In 1918 large scale manufacture of vaccines was undertaken, beginning with cholera and prophylactic influenza

vaccines. Vaccine preparation was discontinued in 1922 but was resumed in 1928 with the manufacture of cholera and T. A. B. vaccines.

Practically all the research work on Bacteriophage was carried out in this Institute and the manufacture of that serum is still an important item in its manufacturing activities.

**Medical Research.**—In the Institute's first year an outbreak of typhoid fever in Shillong was investigated and T. A. B. vaccine was used on a large scale. As Captain (the late Lt.-Colonel) Knowles pointed out in the annual report of that year that was perhaps the first attempt to inoculate a civilian Indian population against enteric on a large scale.

In 1918 a special ward was opened for the treatment of kala-azar patients, in which in 1923-24 Major (now Lt.-Colonel) H. E. Shortt, I.M.S. and Lt.-Colonel E. D. W. Greig, I.M.S., proved the efficacy of Urea Stibamine (Brahmachari). This opened the way for the great campaign in Assam. In 1924 the Kala-Azar Commission was formed and worked at this Institute and later in other parts of the Province.

In 1930 the Assam Medical Research Society, an auxiliary to the Pasteur Institute, was formed and undertook the study of the epidemiology of cholera, the investigation of malaria in the province, and, in collaboration with Dr Margaret Balfour C.B.E., research in the anæmias of pregnancy in the Tea Estates.

## CHAPTER IX.

**Medico-legal Work and Imperial Serological Department.**

In this work Chemistry and Serology are exercised in the service of the law. It is undertaken by:—

four Chemical Examiners, *viz.*,

1. Chemical Examiner, Bengal, Calcutta, for Assam, Bengal, Bihar and Orissa,
2. Chemical Examiner, United Provinces, Agra, for United Provinces and Central Provinces.
3. Chemical Examiner, Punjab, Lahore/Murree, for the Punjab and North-West Frontier Province,
4. Chemical Examiner, Madras, for Madras Presidency;

two Chemical Analysers, *viz.*,

1. Chemical Analyser, Bombay, for Bombay Presidency,
2. Chemical Analyser, Karachi, for Sind, and

one Imperial Serologist, Calcutta, for the whole of India (and also Burma).

2. The Chemical Examiners and Analysers are experts in procedures which go much beyond the limits of Chemistry; such as toxicology, microscopy, photography and examination under ultra violet and infra red lights. They establish the presence of organic and inorganic poisons in food, fodder and viscera; detect blood on clothing, weapons and objects in connection with deeds of violence, maiming of animals and allied offences; determine the nature of explosives used or intended for illegal purposes; examine animal tissue and fabric microscopically; trace origin of ink on faded documents and examine the latter under ultra violet light; and test samples for the excise, customs and other important departments of the State, in the course of their essential work. In their spare time they teach scientific methods of detecting crime to police officers and examine samples in the interest of Public Health or even for the benefit of commercial enterprises.

3. The Chemical Examiners and Chemical Analysers receive the material for examination as 'exhibits' from the police, magistrates, medical officers and officers of excise, customs and other important departments of the State, of their province or provinces in British India. They are also called upon by small Indian States to help them in their medico-legal work. In the summary of medico-legal work given at the end of this account a small percentage of cases and articles analysed for the Indian States is included in the total for each Chemical Examiner and Chemical Analyser.

4. The Imperial Serologist determines by serological means the origin of the blood, human or animal; causes of bleeding, injury, menstruation or parturition; group of the blood in term of O (I JANSKY, IV MOSS), A (II JANSKY & MOSS), B (III JANSKY & MOSS) & AB (IV JANSKY,

1 MOSS). He also deals with tissues of the body other than blood for the determination of their origin. In his spare time he undertakes laboratory examinations of blood for clinical purposes; runs a blood transfusion service for the hospitals in Calcutta; and teaches Serology and Immunology to the various classes in the School of Tropical Medicine, Calcutta, and in the All-India Institute of Hygiene and Public Health, Calcutta.

5. The Imperial Serologist receives exhibits from the Chemical Examiners and Chemical Analysers of British India and Burma. He also receives a small percentage of exhibits from large Indian States which employ Chemical Examiners of their own. In the summary of work given at the end of this account a small percentage of cases and articles analysed for the Indian States is included in the total for the Imperial Serologist.

6. Centralization of the determination of the origin of blood in the Imperial Serologist's laboratory serves two useful purposes: (1) it provides a double check on the mere presence of a bloodstain and (2) keeps the standard of medico-legal evidence, regarding its origin, uniform in criminal cases involving grave consequences.

7. The accompanying table summarises the medico-legal work done by the aforesaid seven officers. Not an inconsiderable amount of original work is also done by the officers engaged in medico-legal work.

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Table showing summary of work done by Chemical Examiners, Chemical Analysts and the Imperial Serologist during 1936.

Medico-legal investigations.

Designation of Officers.	Human poisoning.		Animal poisoning.		Stains.		Miscellaneous.		Total.		General analysis and other work.	
	Cases.	Articles.	Cases.	Articles.	Cases.	Articles.	Cases.	Articles.	Cases.	Articles.	Cases.	Articles.
1. Chemical Examiner, Bengal, Calcutta.	984	1,769	118	170	1,242	3,547	3	298	2,347	5,784	..	1,963
2. Chemical Examiner, U. P., Agra.	412	1,351	20	50	1,037	3,169	8	42	1,477	4,642	1,453	2,424
3. Chemical Examiner, Punjab, Lahore/Murree.	1,088	5,241	51	231	1,870	4,488	12	15	3,021	9,975	1,324	2,688
4. Chemical Examiner, Madras.	363	2,090	15	67	953	5,051	67	333	1,398	7,541	203	203
5. Chemical Analyst, Bombay.	655	1,688	41	231	533	2,398	26	99	1,255	4,416	..	5,317
6. Chemical Analyst, Sind, Karachi.	100	346	..	..	276	855	9	89	385	1,290	..	643
Total for whole of India.	3,602	12,485	245	749	5,911*	19,508*	125	906	9,883	33,648	2,980	13,238
7. Imperial Serologist, Calcutta.	..	..	..	....	4,747***	15,062**	..	..	..	..	14,921†	17,901†

\* (Wassermann and blood grouping tests).

† (Total cases of general work other than medicolegal work).

\* Medico-legal cases and articles referred to the Imperial Serologist by the Chemical Examiners and Chemical Analysts are parts of these totals, excluding cases and articles from Burma.

\*\* Includes 487 articles from Burma.

\*\*\* Includes 326 cases from Burma.

**CHAPTER X.****Pharmacy and Drugs Control.****1. METHODS OF CONTROL.**

The report of the Drugs Enquiry Committee (1930-31) drew attention to the ineffectiveness of existing legislation to control the drug industry and to prevent the sale of impure, adulterated and misbranded pharmaceutical products.

2. Mere adulteration of drugs is not, by itself, prohibited throughout British India by any enactment. Apart from the commission of the offence of cheating, adulteration which renders the drug 'noxious' or 'lessens the efficacy' or 'changes its operation' alone is controlled by the Indian Penal Code. Nor is the sale of a drug of insufficient strength or improper standard punishable otherwise than on the basis of misrepresentation and fraud. These expressions are vague and are of inconclusive import. The baneful results of adulteration or defective strength of drugs may be slow and gradual in making themselves evident. The non-existence of fixed standards or methods of analysis, the absence of any precise definition of adulteration, the difficulty of proof and the fact that intention or knowledge is of the essence of these offences, as well as of cheating, complicate the situation and render the provisions ineffective in actual practice. The offences are non-cognizable and no particular trained staff or well-equipped organization or machinery is entrusted with the special duty of keeping vigilant watch over cases of infringements of law and bringing the guilty to book. In penalizing false marks and false trade descriptions, the Indian Merchandise Marks Act and the Sea Customs Act merely touch the fringe of the problem of misbranding which is hydra-headed. Strict proof of difference in the nature or quality of the goods or the falsity of the description is often beset with impediments..... The provisions have, therefore, naturally remained practically inoperative. The Cantonments Act is also of limited scope and efficacy. Its provisions are equally vague and inadequate and are subject to similar infirmities as those of the Indian Penal Code. The Indian Sale of Goods Act, 1930, which is merely concerned with obligations of a civil nature and the other Acts already referred to are wholly inefficacious in securing foods and drugs of the opposite standard of strength, purity and quality.

3. A close study of the conclusions arrived at irresistably points to the pressing need for immediate improvement of the situation in regard to the profession of pharmacy in India and to the manufacture, sale and import of drugs included in the British Pharmacopoeia as well as of those which are 'known and approved'. As described by some of the witnesses, the situation is chaotic in the extreme and calls for stringent measures to cope with it urgently.

4. The propriety of limiting freedom, in the interests of the public at large, by subjecting it to necessary control cannot be gainsaid. The claim for special and exceptional measures for strict control over the so-called 'drugs of addiction' or habit-forming drugs as Indian hemp and

opium has been recognised. The International Opium Convention signed or ratified by every civilized nation in the world is directed against such drugs. The maintenance of the purity and strength of other drugs is a justifiable ground for grant of special protection.

5. Adulteration is generally the outcome of unhealthy competition to supply medicine at low prices. Under-strength in preparations labelled as poison is common, partly on account of the paucity of qualified chemists capable of testing them and partly on account of the desire to avoid untoward accidents. Such is the case with preparations like tinctures of nux vomica, digitalis and the liquid extracts of ergot and belladonna. The devices adopted are many, namely, (1) removal of the characteristic principle from essential oils (*e.g.*, eugenol from oil of cloves, cineol from eucalyptus oil, santalol from sandalwood oil, menthol from oil of peppermint); flavouring of the terpene and sesquiterpene residues with such substances as benzaldehyde, cinnamic aldehyde, terpineol, geraniol, and sale as essential oils; and mixture with mineral oils; (2) adulteration of expensive drugs such as cocaine, santonin, saccharine, quinine, caffeine, potassium iodide and thymol, with substances similar in appearance, *e.g.*, cocaine with phenazone, aspirin, potassium nitrate, etc., santonin with boric acid; quinine with chalk, starch and other inert matter; potassium iodide with potassium bromide which is much cheaper; (3) use of inferior or damaged raw materials which are purchased at cheap rates; (4) use of preservatives permitting decrease in alcohol content, *e.g.*, addition of carbolic acid, formaldehyde, salicylic acid (which are injurious in character); (5) importation of time-expired or stale drugs which are not saleable in the country of origin; (6) false and misleading labels as to quality and strength; and (7) adoption of fictitious names with the object of misleading the public.

6. As regard the profession of pharmacy, there are practically no restrictive laws of general application except certain perfunctory provisions in Municipal Acts of some of the Provinces relating to the registration and licensing of retail shops and the employment of compounders.\*

7. Biological products and organo-metallic compounds require special care in their manufacture as regards personnel and equipment, and their subsequent control by bio-chemical and biological assays. Equally great attention is required in regard to their import as they are peculiarly susceptible to defective conditions of transit and storage.

(Paragraphs 2 to 7 above are quotations from the Report of the Drugs Enquiry Committee.)

8. In making a series of important recommendations the Committee stressed the need for immediate legislation to control the sale of drugs and the profession of Pharmacy, as well as for the establishment of a Central Laboratory, whose main functions would be to carry out research, to standardise methods of analysis and tests, and to undertake examination of drugs sold in the market.

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\* Paragraphs 48, 204, 205, 207, 208 and 209 of the Drugs Enquiry Committee Report 1930-31 have been reproduced as Paras. 2 to 7 of this Chapter.



9. Since the publication of the report of the Committee the constitutional position in India has altered by the introduction of the Government of India Act, 1935. The responsibility for the control of the manufacture, storage and sale of drugs and medicines and for the education and registration of pharmacists and compounders now rests primarily with provincial Governments. Any effective steps to implement the recommendations of the Committee must therefore be taken by the provinces.

10. The Government of India in September 1937 introduced a Bill in the Legislative Assembly to regulate the import into British India of drugs and medicines. The Statement of Objects and Reasons of the Bill reads as follows:—

“The Government of India have for some time past following the report of the Drugs Enquiry Committee been considering, in consultation with local Governments, the question of implementing the recommendations made by the Committee for controlling the import, manufacture and sale of drugs and medicines in India. The recommendations are based on a vast volume of evidence, both oral and written, collected by the Committee during its extensive tour in the country, and they have received widespread support in India. Government has been pressed in the Legislature, by commercial bodies, and in the public press of India without distinction of party to implement the recommendations of the Committee. In addition, the question was debated in the Council of State in September, 1935. The subject is one which is primarily the concern of provincial Governments, and Central legislation can only deal with imports. Certain recommendations, for instance, those relating to the manufacture, storage and sale of drugs, education and control of pharmacists, are essentially for provincial Governments to deal with. The Bill excludes such matters.”

11. The Government of India established in 1937 a Drugs Control Laboratory which in accordance with the limitation of the Government of India Act can undertake such work as research, standardisation of methods, and the testing of those substances for which the provincial Governments are unable to make arrangements at their own laboratories, *e.g.*, organo-metallic compounds, vaccines, sera, toxins; anti-toxins and antigens. The Laboratory will, it is expected, finally have four sections:—

- (a) Bioassay Section,
- (b) Pharmaceutical Section,
- (c) Sera and Vaccines Section, and
- (d) Vitamins Section.

and its functions will be:

- (1) To do research work, to standardise methods of analysis and tests with due regard to climatic and other conditions prevailing in different

parts of India, and where necessary to hold standards, in connection with the following therapeutic substances which cannot adequately be tested by chemical means:—

(a) Organo metallic compounds.

(b) Gland products.

(c) Substances commonly known as vaccines, sera, toxins, anti-toxins and antigens.

(d) Vitamin products.

(2) To undertake the testing of certain organo-metallic compounds, and other substances which cannot be undertaken in provincial laboratories and in accordance with a schedule to be approved by the Government of India.

(3) To give special training in biochemical and bioassay methods to qualified analysts.

(4) To examine and to give expert opinion on the therapeutic substances submitted by provincial governments.

(5) To issue periodically bulletins of the progress of its activities, and of information which may be valuable, to provincial laboratories and manufacturers.

(6) To undertake analytical examinations for the assistance of manufacturers, for which a prescribed fee will be charged, on the understanding that under no circumstances may any report be used for advertising purposes.

12. The Bioassay and Pharmaceutical Sections have already been established at Calcutta, while the Sera and Vaccines Sections will be formed at the Central Research Institute, Kasauli, and the Vitamins Section at the Nutrition Laboratories, Coonoor, as soon as the necessary preliminary investigations have been completed. The present location of the various sections of the Drugs Control Laboratory is a temporary one and must remain undetermined until more experience is gained of the quality and quantity of work which it will be called upon to carry out.

13. Control of the manufacture and sale of drugs (chemical and biological products used for medicinal purposes) as well as of the profession of pharmacy are matters which must be dealt with by provincial governments, several of whom already have the matter under serious consideration. As recommended by the Drugs Enquiry Committee a comprehensive Pharmacy Act should enable pharmacists to exercise a control over their own profession by the formation of a provincial Pharmaceutical Council who would—

1. Control the education, examination and registration of pharmacists and compounders.
2. Have power to issue diplomas and licenses to practice, to pharmacists and compounders.
3. Exercise disciplinary powers over registered pharmacists and compounders.

4. Inspect licensed chemists' shops, manufacturing chemists, etc., by means of an inspecting staff of trained pharmacists whose reports should be dealt with by the Council and issued in the form of recommendations to the local authority concerned.

he Pharmaceutical Council would be financed by—

1. Examination fees,
  2. Registration and licensing fees, and
  3. Government grant, but this should be recouped by licensing fees of shops and premises.
- Government through local authorities, i.e., municipal boards, etc., should undertake the following responsibilities—

1. Licensing of chemists' shops, drug manufacturers and dealers in patent and proprietary medicines.
2. Collection of license fees, of which not less than two-thirds might be credited to Government for the maintenance of the Pharmaceutical Council.

Chemists, drug shops and manufacturing concerns should be required to conform to regulations to be framed under the legislation on the subject and to those relating to the Poisons Act and Excise regulations. Action in regard to offences or misdemeanours should be dealt with by the police and local authority.

14. Since writing these notes the Select Committee of the Central Legislative Assembly has considered the Bill referred to in paragraph 10 above and it has suggested that an enquiry should be made from the provinces whether they would agree to a comprehensive legislation by the Centre embracing such matters as are allocated to the provincial power of legislation in respect of manufacture, distribution and sale of drugs and medicines or whether they would themselves undertake the necessary legislation. Further progress in the matter will depend on the nature of replies to be received from the Provinces.

### **Pharmacists.**

While a few European trained pharmacists are employed by private firms, the practice of pharmacy throughout India is mainly conducted by compounders, who receive only an elementary training in Government or private hospitals. That the accepted standard of preliminary education is a very low one and the course of training inadequate is borne out by the following table:—

Table showing particulars regarding Compounders.

Provinces.	Standard of Preliminary Education.	Duration of Training.	Place of Training.	Examining Body.	Scales of Pay.
Madras	IV Form	9 months	All City hospitals, District headquarters hospitals and hospitals in charge of Civil Surgeons.	Secretary to the Commissioner for Government Examinations.	Rs. 28-1/2-40
Bombay	VI Standard of an Anglo-Vernacular School.	6 months to 1 year.	Government hospitals and grant-in-aid dispensaries.	Civil Surgeons and other Medical Officers in charge of Government hospitals.	25-5/2-70
Bengal	Matriculation	2 years	Medical Schools at Calcutta, Chittagong, Dacca, Burdwan and Mymensingh. Medical Mission Hospitals at Ranaghat, Kalna, Krishnagar and Kalimpong. Allahabad, Benares, Lucknow, Agra, Meerut and Bareilly.	Governing Body of the Bengal State Medical Faculty.	30-2/2-40
United Provinces	VIII Standard of an Anglo-Vernacular High School.	10 months	Medical School, Amritsar	Board of Examiners, Medical School, Amritsar.	18-40
Punjab, and Delhi	Anglo-Vernacular Middle School Examination.	15 months	Robertson Medical School, Nagpur.	Committee consisting of the Superintendent and two teachers of the Robertson Medical School, Nagpur.	22-50 20-45
Central Provinces	VIII Standard of an Anglo-Vernacular Middle School.	1 year			

Province.	Standard of Preliminary Education.	Duration of Training.	Place of Training.	Examining Body.	Scales of Pay.
Bihar	Matriculation or qualifying examination held previous to admission.	2 years	All Sader and some other recognized hospitals, and Darbhanga Medical School Hospital, and Patna Medical College, Hospital.	..	Rs. 20-1-40
Assam	Matriculation or VIII Standard.	2 years	Berry-White Medical School, Dibrugarh.	Committee consisting of Superintendent and two teachers of the Berry-White Medical School, Dibrugarh.	30-1-40
Orissa	These areas are governed by the Madras Rules.				
Orissa	These areas are governed by the late Bihar and Orissa Rules.				
Sind	VI Standard of an Anglo-Vernacular School.	1 year	Government hospitals and grant-in-aid dispensaries.	Civil Surgeons and District Medical Officers.	25-5/2-70.
North-West Frontier Province.	Matriculation	6 months to 1 year.	Hospitals under Civil Surgeons.	Civil Surgeons	20-50

2. The Drugs Enquiry Committee recommended a comprehensive course of training which would provide a body of skilled pharmacists of equal standard to those who obtain the qualification of the Pharmaceutical Society of Great Britain. The small rate of pay which obtains in all provinces would not justify a comprehensive course of three years' training and neither would it appear that any reasonable increase of salary, to provide a highly skilled professional worker is possible with the limited available finances of India. Both Bengal and Madras have instituted advanced courses in Pharmacy, but they are not popular, mainly because the prospects for future remunerative employment are poor.

3. The probable solution would be to insist upon a reasonable standard of general education such as is guaranteed by passing the Matriculation examination of an Indian University, an adequate course of training, including apprenticeship of not more than 9-12 months, and properly organised Provincial examinations. A dispensing qualification such as that of the Apothecaries' Assistants of the United Kingdom would be the best line on which to make proposals. A useful suggestion came from the Drug Trade that holders of a B. Sc. of an Indian University after serving the necessary apprenticeship and passing the compounders' examination would find a suitable career in higher grade pharmacy appointments.

### 3. QUININE.

It has been estimated by more than one observer that the number of persons suffering from malaria in India is about a hundred millions. The incidence of the disease is much higher in the rural than in the urban areas. In 1936 the rural death rate from malaria in seven provinces, for which separate rural and urban figures were available, was 10.0 per mille of the population and the urban 3.5 per mille. As nearly 90 per cent. of the people live in the villages the malaria problem in this country is essentially rural in character. However, nowhere in the world has there been evolved a satisfactory method of effectively controlling rural malaria except at a prohibitive cost. We have therefore to content ourselves with attempts to palliate the sufferings of the many millions stricken by the disease and administration of quinine appears to be the most satisfactory way of achieving this end. While eradication of malaria cannot be effected by drug treatment, mass quininisation is of great benefit as it reduces morbidity and mortality and also helps to diminish the economic loss caused to the country by the disease.

2. The problem is not, however, simple. In the first place the amount of quinine required would be enormous. Taking 45 grains as the minimum effective dose to relieve symptoms, the Public Health Commissioner estimates that, for a hundred million patients, the annual requirements of India would be approximately 600,000 lbs. A report on an enquiry into the quinine requirements of malarious countries by the Health Organisation of the League of Nations (No. C. H./Malaria/185,

Dec. 1932) suggests 20 grammes of quinine per case per year as a satisfactory basis of calculation. India's requirements would then be about seven times more than the estimate of the Public Health Commissioner or over four million pounds every year. Another report of the Health Organisation (C. H./Malaria/158, April, 1931) mentions that the world's consumption of quinine is approximately 600 tons per annum or 1,344,000 lbs., which is less than a third of the second estimate of India's requirements. The actual consumption in India, according to the Public Health Commissioner, "has been remarkably steady at about 200,000 lbs. per annum, of which approximately 110,000 lbs. are imported and 90,000 lbs. are produced in India". Present consumption is therefore only a third of lower estimate of India's requirements and one-twentieth of the larger estimate.

3. India is largely dependant on foreign imports even for her present rate of consumption. Java produces quinine for the rest of the world and her potential supply is said to be about 1,400 tons or 3,136,000 lbs. "For many years past Java has produced approximately 97 per cent. of the total world supplies, India being responsible for about 2.5 per cent. and other countries for the minute proportion of 0.5 per cent. As the Indian production serves only a fraction of the needs of this country, any plan for mass treatment with quinine must take into consideration the question of extending cinchona cultivation and of producing quinine at a competitive price with the imported product. In India cinchona plantations are confined to the provinces of Madras and Bengal. The Administrative Report of the Madras Government Cinchona Department for 1935-36 stated, 'there is not the slightest doubt that quinine will never be produced in South India as cheap as in Java'. It suggested that expansion of cultivation should be attempted mainly on the ground of economic nationalism. On the other hand the Report of the Government Cinchona Plantations and Factory in Bengal for the same year showed that, while the prevailing market price was Rs. 22 per lb. of quinine, at the government rate of Rs. 18 per lb. the quinine produced in the province gave a profit of over Rs. 55,000. The report went on to say that areas existed fairly suitable to the cinchona plant and that experience had shown that it could be cultivated at costs "which would allow of a cheapening of quinine for the masses". Bengal may therefore be able to help to some extent. An investigation has recently been carried out by an officer experienced in cinchona cultivation to determine what areas in India would be suitable for the cultivation of the plant and what the cost of such cultivation would be.

4. Another equally important aspect of the problem is to devise suitable machinery for distributing quinine to the masses. In any system of distribution there is need for close and constant supervision. Otherwise an appreciable proportion of the quantity issued for distribution may not reach the rural population but may find its way into the hands of unscrupulous dealers ready and willing to buy quinine at considerably lower rates than the prevailing market price. The possibility of producing quinine in India in such large quantities and at such low costs as to shut out foreign

competition appears to be remote and, so long as the market price is largely controlled by foreign production, room for abuse of any system of free or cheap distribution will remain.

5. Lastly, a rigorous enforcement of law for the prevention of sale of adulterated quinine is essential. There is evidence to show that quinine pills placed on the market by certain firms contained little or no quinine and that, even in the case of certain post offices, the five-grain tablets sold to the public contained smaller quantities of the drug. The law requires strengthening and, what is more, an efficient organisation for enforcing the law has to be built up in the provinces.

6. In the foregoing paragraphs the problem has been presented in its barest outline. For a more detailed exposition of the subject reference may be made to Colonel A. J. H. Russell's paper, "Quinine Supplies in India", in the Records of the Malaria Survey of India, December, 1937.

7. In conclusion the position regarding quinine may be summed up in Colonel Russell's words, "The question of the provision of adequate treatment for the malarious sick in India is both wide and complex. It embraces such issues as the advisability of extending cinchona cultivation, the most suitable species to be grown, the selection of areas suitable for their growth, economic repercussions arising from an extension programme, financial considerations, rights under the new constitution, organisation for the distribution of drugs and probably others that have not been mentioned. The question is one in which every province and State in India is intimately and gravely concerned".

#### 4. MEDICAL STORES DEPARTMENT.

There are four Medical Store Depots, located at Madras, Bombay, Calcutta and Lahore. They are administered by the Director-General, Indian Medical Service, on behalf of the Government of India, Defence Department.

2. These depots were originally established to ensure the supply of drugs, instruments and appliances, of uniform quality and pattern for the Army in India. In course of time their sphere of activity was extended and by a normal process of evolution civil medical institutions turned to them as the most reliable source of supply.

3. The Stores were, at first, only distributing centres. It was however discovered that some of the drugs could be more economically manufactured in India than imported from abroad and in consequence Depots undertook to do pioneer work in manufacturing. The number of items manufactured gradually increased, especially during the War, and now there are at the Madras and Bombay Depots two modern and up-to-date factories, employing Indian labour capable of supplying all Government institutions in India with drugs and preparations, of British Pharmacopoeia standard. At each of these factories there is employed a highly qualified advisory chemist, whose duties include the analytical examination of every preparation made in the Depot factory and all supplies received from outside to see that they are up to the prescribed



standard. They also examine all anaesthetics and drugs liable to deterioration immediately they are received from Europe and thereafter at frequent intervals. Further, as soon as it is found that a preparation of the required standard can be obtained in India at a rate not more than the cost of manufacture in the Depots, the manufacture of that particular item is discontinued and it is purchased locally. More than half the amount provided for purchase of stores is in this way spent on purchases made in India. Stores worth Rs. 11,52,131 were imported in 1936,37. while Stores worth Rs. 14,14,796 were purchased in India during the same period. There are many preparations made nowhere else in India. For example, in the Madras Depot are made the four preparations of Oleum Hydnocarpus, used in the modern treatment of leprosy, and it is believed that this is the only source in India from which these preparations can be procured at a reasonable rate.

4. It is not the policy of Government, to compete with private enterprise, neither is it the intention to make a profit from the Medical Stores Department although it is desirable that it should be as nearly self-supporting as possible. Private institutions are not encouraged to obtain their supplies from Medical Store Depots, but the experience of the past has proved that the Department was able to make good the deficiencies required for Civil purposes, and which were due to the failure or irregular supply of imported drugs.

The Medical Store Depots therefore fulfil a useful and necessary function, which may in time of crisis become vital.

## CHAPTER XI.

**Medical and other Cognate Societies.****1. INDIAN RED CROSS SOCIETY.**

In August, 1914, when the Great War broke out, India found herself without a Red Cross organisation. The late Surgeon-General with the Government of India, Sir Pardey Lukis, devoted himself to the task of filling the gap. The St. John Ambulance Association was already doing good work in India, and Sir Pardey Lukis therefore grafted on to it a Red Cross Branch and so formed what was called the Indian Branch of the Joint War Committee (British Red Cross Society and St. John Ambulance Association).

2. Up to the end of 1917 this Committee largely depended upon funds provided by Great Britain to further its activities for the relief of the sick and the wounded of the Indian Army in India, Mesopotamia, Palestine and Egypt. At the end of 1917, the "Our Day" appeal for funds was made by Lord Chelmsford, in response to which over a crore of rupees were collected. This generous response enabled the Joint War Committee in India to become self-supporting, and when the Armistice was signed on November 11, 1919, a portion of the capital subscribed was still unspent.

3. The Indian Red Cross Society Act (Act XV of 1920) was therefore passed which set up an independent Indian Red Cross Society, and made provision for the administration of the surplus war funds by the Managing Body of the new Society.

4. Before leaving the subject of the Great War, a few details of the work done by the Indian Branch of the Joint War Committee may be of interest. Over 62 lakhs of rupees were spent in Mesopotamia alone on Red Cross stores and on transport. There was nothing the army called for which the Red Cross did not try to supply. When in Baghdad the electric current failed, the Red Cross supplied all hospitals with punkahs manipulated by small Arab boys. It also set up heatstroke stations which saved many lives in the heat wave of 1917. It provided ambulance transport for the wounded and before the end of 1916 there were 33 Red Cross launches on the rivers of Mesopotamia bringing down the wounded, in addition to many motor ambulances. In the Afghan Campaign of 1919 the Red Cross was again active and supplied comforts to all the frontier hospitals.

**Organisation and finance.**—The Indian Red Cross Society is an essentially national organization, and it spends all its income in India, or in countries where the Indian Army may be engaged. The only exception is occasional contributions which may be made by the Society in response to International Red Cross appeals.

2. The total membership of the Society at the end of 1936 was 21,663 exclusive of Junior Red Cross members, of whom there were 4,20,650

enrolled in 11,860 school groups. Its headquarters are in New Delhi, housed in a spacious building donated by H. H. the Nawab of Junagadh. The Society has branches in every Province in India and in a number of Indian States, and these branches are again sub-divided into districts, so that there is a network of Red Cross centres all over India. At the end of 1936 there were 25 Provincial or State Branches, and 282 District and Sub-District Branches.

3. According to the provisions of Act XV of 1920, which established the Indian Red Cross Society, the Managing Body, after meeting expenses of management at the headquarters distributes all its income from invested funds among the Branches in the proportion in which the "Our Day" Fund was originally collected. The amount so distributed in 1936 was Rs. 2,19,600.

**Military Activities.**—Like other Red Cross Societies, the Indian Society can never lose sight of its primary obligation to act as an auxiliary to the Army Medical Services in case of war. In view of this, a mobilization plan has lately been drawn up, and arrangements are being made whereby the Central Stores Depot in New Delhi can be expanded in case of need, and additional Depots opened in other centres.

2. A Red Cross Roll of Nurses for Emergency or War has been organized and trained nurses on this Roll will be available in time of war.

3. A Voluntary Aid Reserve scheme, to supplement the regular army nursing service has also been approved by Army Headquarters. Recruits for this Reserve are drawn from the Nursing Divisions of the St. John Ambulance Brigade Overseas, and a register of all enrolments is kept at the Army Headquarters. Members are expected to undergo training in a military hospital at regular intervals.

4. In peacetime the Society, through its Provincial Branches, supplies a number of military hospitals with additional comforts for the sick and wounded, which are much appreciated. The Bengal Branch has a Military Division, which sends regular parcels of literature, cigarettes, etc. to troops, especially to those stationed in lonely outposts.

5. Discharged Indian soldiers suffering from chronic diseases, particularly from tuberculosis, are referred by the Indian Soldiers' Boards to Red Cross Branches, which follow up the men on discharge, arranging where possible for their treatment. Over a thousand cases have now been dealt with in this way. European cases are assisted by headquarters, in co-operation with the Ex-Services Association, and a special grant of £500 was received in October, 1936, from the Joint War Finance Committee, London, for such cases.

6. The United Provinces Branch has established in the Bhowali Sanatorium a Red Cross Ward, which is reserved for ex-soldiers suffering from tuberculosis, and the 12 beds are nearly always occupied.

7. Recently the Society was called upon to supply additional comforts to the sick and wounded of the Waziristan campaign (1936-37), and among the articles supplied have been lilo mattresses for stretchers, thermos bottles for cool drinks, anti-fly campaign materials and the usual hospital requisites.

**Child Welfare.**—The greater part of the Society's income is spent upon its peacetime programme. It seemed to those who directed the affairs of the Society in its early days that the first and most crying need was to teach mothers how to bring up healthy children and so child welfare was placed in the forefront of its programme.

2. The Maternity and Child Welfare Bureau, established in 1931 by amalgamation with the Lady Chelmsford League and Victoria Memorial Scholarships Fund, has concentrated on Training Schools for Health Visitors and the training of indigenous *dais*. The Lady Reading Health School Delhi, is a central training school for health visitors, and provincial Training Schools in Madras, Rangoon and Poona received financial aid in 1937, while the Bengal Health School, which was closed in 1934, expects to re-open in 1938. Financial aid is given to *dai* training schemes, the object being to provide a midwifery service, suitable for and acceptable to the mass of the people particularly in rural areas.

3. Provincial State and District Red Cross Branches spend a considerable portion of their income on maintaining or giving financial support to local child welfare centres. The staff employed by local committees includes trained *dais*, nurse-*dais*, midwives, maternity supervisors, health visitors and sub-assistant surgeons. Some branches concentrate on the provision of a domiciliary midwifery service, some on the maintenance of small maternity homes and others on welfare centres, nursery schools and creches.

4. Another activity of the Maternity and Child Welfare Bureau is the supervision of army child welfare centres, most of which receive generous support from Red Cross funds. These centres are run in cantonments for the wives and children of British and Indian troops. Handsome grants from the Indian Expeditionary Force Canteen Fund and the Indian Army Benevolent Fund have supplemented the funds available. Co-operation between the army authorities and the Bureau in their work has been close and cordial, and the actual work of supervision locally is undertaken voluntarily by army officers and their wives.

**Popular Health Education.**—The Society's work to educate the masses in the prevention of disease is carried on by a variety of methods. Health lectures in many different vernaculars are regularly organised under Red Cross auspices. Sometimes these are illustrated by films and lantern slides. Headquarters has its own Cinema Section, which produces health films and also owns an extensive Film Circulating Library. The Red Cross productions now number 8, while the library contains 34 standard-size, and 85 sub-standard size films.

which are in constant demand. Lantern slides on all the principal diseases are produced at headquarters and sold from the Red Cross Central Depot at New Delhi. This Depot also stocks a large amount of health literature such as posters, pamphlets and charts, and also literature on Red Cross organisation.

2. Many large cities in India organise an annual Health Week; often directly under the auspices of the Red Cross Society. Junior Red Cross groups also carry on health propaganda at rural fairs. Some Red Cross Branches (for instance, in Bombay Presidency) have organised travelling dispensaries which give medical relief to rural areas and also carry on health propaganda. The King George V Travelling Dispensary in Delhi Province was established by a grant from the Red Cross portion of the Silver Jubilee Fund.

**Junior Red Cross.**—The Junior Red Cross is the school-children's branch of the Red Cross, and has as its objects the inculcation of health habits, service to others and international friendliness. At the end of 1936 there were 11,360 school groups with 4,20,650 members. A large proportion of these groups are in village schools and the members perform many useful services both inside and outside the school walls, thus contributing to rural improvement. Members observe the health rules, take First Aid Training, distribute hand-bills on prevention of epidemics, organise health dramas, and give occasional aid to the sick and suffering. Some senior groups exchange correspondence albums with Junior Red Cross groups in other countries.

2. Through the Junior Red Cross and with the aid of a grant from the National Institute for the Blind, London, the Society has for several years been carrying on a campaign to increase knowledge on the prevention of blindness. Courses for teachers have been organised in training colleges throughout India, and vernacular pamphlets have been distributed in large numbers through schools and Red Cross Branches. At present a campaign for better nutrition is being carried on through Junior Red Cross groups and posters, slides and a film have been supplied by headquarters.

**Assistance to Hospitals.**—A large number of civil and mission hospitals receive regular assistance from Red Cross funds. Sometimes this assistance takes the form of additional equipment or hospital comforts, and in other cases financial aid is given to supplement the nursing staff or provide additional training facilities for nurses.

2. The Bengal Branch spent Rs. 20,000 in 1936 on paying nurses' salaries in mofussil hospitals which could not otherwise afford them. The Bihar Branch presented a motor ambulance worth Rs. 4,000 to Patna General Hospital. Headquarters paid for an operating table costing £45 for St. Joseph's Hospital, Baramulla, Kashmir. These are examples of the kind of assistance which the Society is able to give hospitals.

**Disaster relief activities.**—The Society has definitely included relief work in disasters as one of its main activities. Headquarters has earmarked a sum of three lakhs from the Red Cross share of the Silver Jubilee Fund to form an "Emergency Relief Fund", the income from

which is spent annually on relieving distress caused by disasters. Provincial Branches have also formed special "Relief Funds", and a portion of Red Cross income is annually devoted to this purpose.

2. Mention has already been made of the "Trained Nurses' Roll for Emergency or War", which supplies personnel for emergencies. These trained nurses are supplemented by the Ambulance and Nursing Divisions of the St. John Ambulance Brigade Overseas, whose members are trained in First Aid and Home Nursing.

3. Red Cross funds are used in time of disaster to supply nurses, hospital supplies, clothing and even food if required. Some of the biggest emergencies with which the Society has had to deal were the Punjab Floods (1929) when funds to the extent of several lakhs were raised by the Punjab Red Cross for flood sufferers, Assam floods (1938), the Bihar earthquake (1934), the Quetta earthquake (1935) and the Bihta Train disaster (1937).

4. The reports of District Branches show that Red Cross assistance is frequently given in local emergencies due to famines, floods or epidemics, and all such help is much appreciated.

**Conclusion.**—The above summary of Red Cross activities shows that the scope for Red Cross work in India is almost unlimited. Faced with a problem of such magnitude as that of coping with disease in India, the Society has directed its activities towards teaching people how to keep well, rather than trying to cure them when sick. The provision of medical relief, especially for women and children is still far from satisfactory, but steady insistence on health education should lessen the high incidence of preventable diseases and the consequent pressure on the hospitals.

## 2. ST. JOHN AMBULANCE ASSOCIATION (INDIAN COUNCIL) AND ST. JOHN AMBULANCE BRIGADE OVERSEAS (EMPIRE OF INDIA).

The work of the St. John Ambulance Association in India dates back to 1909, when the Indian Council was founded, with H. E. the Viceroy as President and H. E. the Commander-in-Chief as Chairman of the Council. Its main object is to give instruction to the general public in First Aid, Home Nursing, Hygiene and Mothercraft. Besides, it also undertakes the organisation of Ambulance Corps, Invalid Transport Corps, Voluntary Aid Detachments, and the assistance of the sick and wounded in time of war. Classes are organised all over India, with the voluntary assistance of medical officers of the civil and military services and private medical practitioners and certificates, medallions, etc., are issued to those passing the examinations. Persons thus qualifying then become eligible to join Ambulance or Nursing Divisions of the St. John Ambulance Brigade Overseas, to which reference is made in one of the following paragraphs.

2. During the Great War of 1914—1918, over 1,000 nurses and nursing orderlies were recruited through the St. John Ambulance Association for military service either in India, at the front or on hospital ships. Apart from this, members of the St. John Ambulance Brigade rendered voluntary

service at the docks in Bombay, Karachi, Calcutta and Rangoon, by loading and unloading the sick to and from hospital ships and trains. Some members also rendered devoted service during the terrible influenza epidemic of 1918.

3. From 1911, since when proper records have been kept, the Indian Council has trained over 500,000 persons in the subjects mentioned above, the majority of whom have qualified in First Aid. In addition to students, who have been trained in large numbers, classes are organised among military and police forces, railway personnel, prison warders, miners and factory workers.

4. A large number of the railway staff in India has already been trained in First Aid and every year thousands of cases of injuries in the railway workshops are dealt with by those who hold First Aid certificates of the Association. The police force receives regular instruction in First Aid while under training at the Police Schools. Courses of instruction in Junior First Aid and Mackenzie School Course in First Aid, Hygiene and Sanitation are held in the boys' and girls' schools all over the country and numerous certificates of proficiency have already been issued to those who have qualified for them. Valuable work is also being done in the Indian States, notably in Gwalior, Baroda and Mysore. The Criminal Tribes Settlements in the Punjab have also taken keen interest in First Aid training, and a large number of these people now possess First Aid and Home Nursing certificates.

**Organisation and finance.**—The Association has Centres in Provinces, Indian States and on Railways, and under these main Centres there are about 250 Local Centres. In the provinces the Governor is usually the President of the Centre, with a Minister or any other high official of the medical services as Chairman of the Committee. In Districts usually the Collector is the Chairman, and often the Civil Surgeon or District Officer of Health holds office as Honorary Secretary. In Indian States the Ruler is either Patron or President, and one of his Ministers acts as Chairman, with the Principal Medical Officer as Secretary.

2. There are various grades of subscribing membership of the Association, but unfortunately the membership in India is regrettably small, being only 250 in 1936. The headquarters receive an annual grant of Rs. 5,000 from the Government of India but, apart from this, the Association is self-supporting. Its main sources of income at the headquarters are fees from certificates, sale of stores, interest on investments (about Rs. 7,500 annually) and a percentage on subscriptions received by Branches. Provincial, State and Railway Branches depend for their financial support on local donations and subscriptions, helped out in some cases by grants from the Local Governments or from the Red Cross Branches concerned.

**Text-books, etc.**—The Association has translated and published its text-books in all the principal Indian vernaculars a task of no small magnitude. Each year about 80,000 books are sold from the St. John

Ambulance Stores Depot, New Delhi, which also stocks First Aid outfits, physiological diagrams, stretchers, splints, and bandages, etc.

2. Recently text-books on air raid precautions and anti-gas measures have been added to the stock as also demonstration respirators. It is proposed to start classes in air raid precautions.

**First aid Road Stations.**—In Calcutta the Bengal Centre has organised two First Aid Road Stations, which render First Aid on the spot to road casualties and treat a large number annually. Gwalior State Centre has also established similar Road First Aid Stations, and in the Punjab, they are being set up gradually along the Grand Trunk Road. A comprehensive scheme for First Aid on Highways has been drawn up by the Indian Red Cross Society, in which the Association is co-operating closely. In the Central Provinces fifty such First Aid Posts are already functioning and 339 persons received treatment at these Posts during 1936.

**Ambulance Competitions.**—All-India Ambulance Competitions are organised by the Indian Council every alternate year at the headquarters of Provincial Centres by rotation. These Competitions increase efficiency and put to test the training received. There are 14 handsome trophies for competition, and as many as 60 or 70 teams from all over India usually take part in it. In addition, Provincial, State and Railway Centres usually organise their own local competitions, for which a number of trophies have also been presented.

**St. John Ambulance Brigade Overseas.**—The St. John Ambulance Brigade Overseas is a uniformed, disciplined body of men and women, all of whom are holders of First Aid or Home Nursing certificates. They meet together regularly for practice, are inspected annually and undertake to turn out for public duty whenever required.

2. At the end of 1936, the Brigade in India consisted of 77 Ambulance Divisions, 15 Nursing Divisions and 23 Cadet Divisions (boys and girls), with a total membership of over 3,000. These Divisions render First Aid at sports meetings, pilgrimages, fairs and so on, and some of them possess their own Motor Ambulances to transport the sick and injured to hospital, a service which is much appreciated. At times of special emergencies they turn out promptly and remain on duty so long as they are required. Some of the recent occasions when Brigade members rendered valuable service are the Bihar earthquake of 1934, when Calcutta members established a camp at Monghyr, the Quetta earthquake of 1935, when Lahore members living in railway trucks at the Quetta Station gave valuable help to the stricken hospitals, the Bombay Riots in successive years, where the Parsi Ambulance Division earned the warm appreciation of the Government of Bombay, and in the recent Bihar railway disaster, when members of the East Indian Railway Nursing Division at Dinapore gave prompt assistance.

3. The Brigade in India is commanded by Sir Ernest Burdon, K.C.I.E., C.S.I., I.C.S., Chief Commissioner for the Empire of India. Under him there are 8 Districts, of which Bengal, numerically the most important, is commanded by a Commissioner, and the others by Assistant Commissioners.



The headquarters of the Districts now established are Lahore, Calcutta, Bombay, Madras, Bangalore, Lucknow and Nagpur besides one on the East Indian Railway. Eventually it is hoped to have a District in every Province of British India and in some of the important Indian States.

**Voluntary Aid Detachments.**—A scheme for Voluntary Aid Detachments to supplement in time of war the military medical services in India has been sanctioned by the Defence Department, Government of India, and is being put into practice. So far only women's Detachments have been formed, to provide recruits for the nursing services. These are enrolled from among members of Nursing Divisions of the St. John Ambulance Brigade Overseas, who are already in possession of First Aid and Home Nursing certificates and have had some experience. The Voluntary Aid Detachment members agree to do a short period of training in a military hospital, and they enrol either for Full Service, to be sent anywhere with the Army in India, or for Local Service, to be attached to the nearest Military Hospital. This scheme provides a splendid opportunity for service in time of war or any other national emergency.

### 3. COUNTESS OF DUFFERIN'S FUND.

[THE NATIONAL ASSOCIATION FOR SUPPLYING MEDICAL AID BY WOMEN TO THE WOMEN OF INDIA (COUNTESS OF DUFFERIN'S FUND INCLUDING THE WOMEN'S MEDICAL SERVICE.)]

The Countess of Dufferin's Fund was founded at the instance of Queen Victoria who personally commended the matter to the care of the Countess of Dufferin before the latter left England for India. As a result of the Countess of Dufferin's efforts, the National Association for Supplying Medical Aid by Women to the Women of India was established in 1885 and has since continued to work for the object for which it was founded namely; medical education to women, medical relief and the supplying of nurses and midwives for hospitals and private work. The Queen Empress became the Patron of the National Association, the Governors and Lieutenant-Governors of the various provinces were Vice-Patrons and other persons were enrolled as Life Councillors, Life Members or Ordinary Members, according to the amount of their donations. The Viceroy's wife was the President of the Association.

2. The plan followed in the working of the Fund was that of a Central Committee at Delhi to which was entrusted the general management of the affairs of the Fund, while in the various provinces local Committees were formed, which were allowed to manage their own affairs and funds, but which were affiliated to the Central Council. Each local Committee was responsible for the establishment of a hospital for women or for supporting a female medical Assistant or Midwife according to the funds at their disposal. Branches were formed in Assam, Baluchistan, Bengal, Berar, Bihar and Orissa, Bombay, Burma, the Central Provinces, Madras, Punjab, United Provinces, North-West Frontier Province and later in Orissa and in Sind.

8. Medical tuton was carried out by the Fund granting scholarships to young women willing to take up the profession of medicine, and by training nurses and midwives.

4. Medical Relief included the establishment under the superintendence of medical women of hospitals and dispensaries for the treatment of women and children; the opening of wards for women and children under female superintendence in existing hospitals and dispensaries and the provision of female medical officers for existing wards for women, as also the supply of trained nurses and midwives for women and children in hospital and private houses.

5. Apart from the above activities, the great achievement of the Association was the manner in which it opened the eyes of the Indian public to the sufferings of their womenkind and showed them how they could organise and found a great national movement destined in time to bring relief to millions, and to draw into its working cadre hundreds of young Indian women who have given themselves freely to the service of their country as doctors, nurses and midwives.

6. Of the different provincial branches perhaps the one which showed itself most active was that of the United Provinces. It built and equipped hospitals at Agra, Allahabad, Lucknow, Cawnpore and Benares, which were all placed under the charge of medical women of the first class. This Branch also employed an increasing number of women assistant and sub-assistant surgeons to take charge of smaller hospitals and of women's wards in Civil Hospitals. These were formed into a regular service, according to their grades and had definite rules for pay, promotion and leave. In addition, the United Provinces Branch organised the Women's Medical School, Agra, in which it was generously assisted by the Central Committee.

7. The main activity of the Bengal Branch was the building and partial endowing of a Women's Hospital at Calcutta.

8. The Bombay Provincial Committee concentrated itself on organising and supporting a Nursing School at the Cama Hospital, Bombay. Later hospitals were opened at Shikarpur, Hyderabad, Karachi and Surat.

9. The Central Provinces Branch opened hospitals at Jubbulpore and Nagpur; the Berar branch at Amraoti, Akola, Shegaon and Yeotmal.

10. In Baluchistan hospitals were opened at Sibi, Quetta and Fort Sandeman; in Bihar at Gaya and Bhagalpur. The Dufferin Hospitals were usually organised by Local Committees which had collected funds locally and were assisted by grants from Provincial or Municipal Committees. But the funds were generally too small to allow of sufficient staff or proper equipment and consequently most of the Dufferin Hospitals went through many vicissitudes and financial crises. The formation of the Women's Medical Service relieved the Local Committees of the task of providing salaries for their medical women and the money thus released was used in the improvement of the general staff and equipment of the hospitals.

11. The Jubilee of the Countess of Dufferin's Fund was celebrated in 1935 both in India and the United Kingdom. On that occasion Her Majesty Queen Mary sent the following message to the Marchioness of Willingdon, the then President of the Council:—"I would wish to take this opportunity of asking you to express to those present at this auspicious Meeting my continued keen interest in all that affects the welfare and happiness of the Fund, and to convey to one and all my warm thanks for their loyal and ever ready support of the great movement which for 50 years has rendered invaluable help to the women of India."

"May all success attend the labours of the Fund in the future, as in the past".

12. On the occasion of the celebration of the Silver Jubilee of His late Majesty King George V, the Dufferin Fund was chosen by him to be one of the four benevolent organisations to benefit by the Silver Jubilee Appeal. Out of the sum of rupees 142 lakhs collected, a sum of Rs. 7,20,000 was given to the Countess of Dufferin's Fund Council for administration.

\* This sum was allotted for specific purposes:—

	Rs.
(a) To restore loss of income caused by fall in the rate of interest.	30,000
(b) For additional staff	3,00,000
(c) For building quarters for officers and nurses	1,00,000
(d) For rebuilding the Dufferin Hospital, Calcutta	1,00,000
(e) For rebuilding the Dufferin Hospital, Quetta	1,00,000
(f) For the Women's Christian Medical College Ludhiana	90,000
	<hr/> 7,20,000

13. The death of the Founder of the Fund—the Dowager Marchioness of Dufferin and Ava—occurred on October 27th, 1936. Lady Dufferin had taken an active interest in the welfare of the Dufferin Association from 1985 up to the time of her death. She was able to attend the United Kingdom Jubilee Meeting of the Association in 1935 and addressed the Meeting.

14. In April 1936 the Marchioness of Willingdon relinquished the Presidentship of the Association which she had held for five years. She was succeeded by Her Excellency the Marchioness of Linlithgow.

15. The office of Chairman of the Council and Executive Committee was occupied by Sir David Petrie until March when he was succeeded by Sir Ernest Burdon.

16. The ordinary recurring income of the Dufferin Fund which amounted to Rs. 40,900 was spent as usual on grants to Provincial Dufferin Branches and to various hospitals and other institutions. A sum of Rs. 9,548 was spent on scholarships to students in medical colleges; 18 at the Lady Hardinge Medical College, Delhi, 8 at Bombay, 3 at Madras and 8 at Calcutta.

17. The Association continued its help to the work of Maternity and Child Welfare not only by paying the salaries of the Director of the Maternity and Child Welfare Bureau, Indian Red Cross Society and of the

Director of the Maternity and Child Welfare Section of the All-India Institute of Hygiene, Calcutta, but also by financing the whole of the Maternity and Child Welfare Section of the Institute including the Model Welfare Centre.

18. The money allotted to the Dufferin Fund from the Silver Jubilee Fund enabled the Committee to give substantial non-recurring grants for the improvement of the women's hospitals at Karachi, Vizagapatam, Allahabad, Shillong and Agra. Grants for much needed developments were also promised from this Fund to the Hospitals at Calcutta, Benares, Cawnpore, Akola, Amraoti, Nagpur and Jubbulpore. Plans were prepared for rebuilding on modern lines the Dufferin Hospital at Quetta which had been completely destroyed by the earthquake in 1935. A new hospital for women was opened at Shillong and was placed under the management of the Assam Branch of the Dufferin Fund. The Central Committee sanctioned the appointment of a W. M. S. officer as Medical Superintendent of this hospital and gave generous grants towards its equipment and for building House Surgeon's quarters.

19. The plans for a new and up-to-date Dufferin Hospital at Calcutta to replace the old and obsolete one were completed. It is hoped that this new hospital when built, will form a Centre for a Post-graduate school for medical women and for Research Work.

20. During 1936 the Central Committee of the Dufferin Fund gave much consideration to schemes for improving the nursing service in Dufferin hospitals. It was fully realised that improvement can only be brought about by raising the status of the nursing profession by attracting to it a better class of girl and by offering her better conditions under which to live and train. With this object in view the Committee sanctioned grants to certain hospitals from the Silver Jubilee money to help them to build and furnish new quarters for nurses, to improve the teaching equipment in training schools for nurses, to employ better qualified sisters in training schools and to enable nurses trained in India to take administrative courses in certain large training schools for nurses.

Only the fringe of this important problem has been touched so far, but it is hoped these small beginnings will develop into a big movement which will lead eventually to a nursing service in our Dufferin hospitals comparable to those in advanced European countries.

21. There is great need in every direction for expansion in the work of the Association. There is practically no medical aid to women in the vast rural areas of India and many more hospitals and dispensaries for women are wanted in the towns and cities. Also the existing institutions ought to be modernised and brought up to present day standards both as regards equipment and staffing. There is enormous scope for the National Association for ministering to the physical welfare of the women of India, but the Dufferin Fund can do little unless more financial help is forthcoming either from the Government or from private philanthropic sources.

## THE WOMEN'S MEDICAL SERVICE.

The formation of the Women's Medical Service for India was the outcome of the following factors:—

- (1) the dissatisfaction of many women doctors at the methods adopted for recruitment of medical women and at the pay and the position of medical women in India,
- (2) the limited income at the disposal of the Dufferin Fund Council which did not allow of larger emoluments being paid to doctors in their pay, and
- (3) the knowledge that the needs of the women of India were not being sufficiently met by the efforts of the Dufferin Fund.

2. As a result of representation made to the Secretary of State on the subject in 1911, the Government of India granted in 1913 a subsidy of Rs. 1,50,000 to be administered by the Dufferin Fund Committee for the purpose of establishing a Women's Medical Service in India. The Service was started in 1914 with a cadre of 25 members admitted by selection and recruitment in India and in the United Kingdom. In later years the Government of India twice raised their subsidy and by 1923 the annual grant had become Rs. 3,70,000. This increased grant enabled the Dufferin Committee to raise the cadre to 44. The rate of pay of members of the Women's Medical Service was finally fixed at Rs. 450—50/3—550 with 10 per cent contribution to a Provident Fund. Free furnished quarters or house rent allowance in lieu thereof were also sanctioned and private practice was allowed. An overseas allowance and passages to the number of 4 during a member's period of service, were granted to officers of non-Asiatic domicile.

3. In 1917 the Dufferin Fund Committee appointed a medical woman as Secretary and Chief Medical Officer, Women's Medical Service. This Officer was given the right of inspection of all hospitals officered by members of the Service—thus ensuring that the hospitals were kept in efficient working order and that good work was being done.

4. In 1925 a Women's Medical Service Training Reserve was organised. Under this scheme the Council of the Dufferin Fund employed women medical graduates, recently qualified in India, and appointed them as assistants in some of the larger hospitals staffed by W. M. S. officers. After 3 years, selected members of these training reserve officers were sent to the United Kingdom for further study and later, if found suitable and if vacancies occurred, they were appointed to the Women's Medical Service.

5. In 1936 the Cadre consisted of 45 members. A relatively large number of these officers were employed in educational work. The services of 9 officers were given to the Lady Hardinge Medical College, Delhi, four to the Women's Medical School, Agra, one to the Medical School, Madras, and one to the All-India Institute of Hygiene, Calcutta.

6. Three officers were employed in administrative appointments—one in the Central office as Secretary of the Countess of Dufferin's Fund and Chief Medical Officer, Women's Medical Service, one in the United Provinces as Secretary to the United Provinces Branch of the Countess of Dufferin's Fund and Senior Medical Officer, United Provinces and one

in the Indian Red Cross office as Director of the Maternity and Child Welfare Bureau. The remainder of the members were employed as executive officers in charge of hospitals in various parts of India.

7. Indianisation of the Service is being carried out. At the end of 1936 the Cadre consisted of:—

Asiatic officers ..... 26.

Non-Asiatic officers ..... 19.

The money allotted from the Silver Jubilee Fund enable the Committee to employ one extra Indian W. M. S. officer and 3 temporary medical officers.

8. The cadre of the Training Reserve was increased to 14. Two members were deputed to England in the autumn for post-graduate study—one to work for the Conjoint of the English Colleges and the other for the Primary F. R. C. S. The two officers who were deputed to the United Kingdom in 1935 returned to India in 1936, one having obtained the Diploma in Medical Radiology and Electrology (Cambridge) and the other the Membership of the College of Physicians (London). Both were given appointments as temporary medical officers on their return—the former as Assistant Radiologist in the Lady Hardinge Medical College, Delhi, and the latter as Senior House Surgeon at the Dufferin Hospital, Calcutta.

9. One member of the Training Reserve was awarded a Fellowship by the Rockefeller Foundation in 1935 for the study of Public Health Work in the United States of America and England. On return in 1936 this officer was given a temporary appointment at the All-India Institute of Hygiene, Calcutta, to carry out some important research under the Indian Research Fund Association on "Maternal Mortality in Calcutta". These officers will be considered for vacancies as they arise in the Senior Service.

#### 4. BRITISH EMPIRE LEPROSY RELIEF ASSOCIATION (INDIAN COUNCIL).

The new light thrown upon the problem of leprosy by the establishment of the fact that early cases were more readily amenable to treatment, coupled with the more effective and practical methods of treatment resulting from recent researches of science, brought about a great mobilization of effort for the eradication of leprosy, and, in 1924, the British Empire Leprosy-Relief Association was founded in London under the august patronage of H. R. H. the Prince of Wales. Leprosy was not a forgotten subject, but with the inauguration of the Association the subject came into greater prominence, and resources for dealing with it were augmented.

2. The Association at once decided to make its campaign against leprosy Empire-wide and, as a result of this move, the Indian Council of the Association was inaugurated in January 1925, by the Marquis of Reading, the then Viceroy and Governor-General of India.

8. The Indian Council was not established a moment too soon. According to census figures which expert investigations have shown to be far short of the actual numbers, India contained by far the largest number of lepers in the Empire and perhaps in the world. The disease was so wide-spread

and the misery of it so well known that the appeal for funds which followed the inauguration of the Indian Council evoked a generous measure of response from the princes and the people of India. A Capital Fund of Rs. 20,25,000 was created of which the annual income, *vis.*, Rs. 1,22,000, was made available for furthering the objects of the Association. This income was reduced by Rs. 11,000 in 1932 owing to the conversion operations of the Government Securities, but it has been made up by a generous donation of Rs. 3,18,000 received from the Indian Red Cross Society from its share of Their Majesties' Silver Jubilee Fund.

4. The Indian Council set to work against a combination of difficulties. The extent of leprosy was an unknown quantity, the knowledge of its incidence and endemicity imperfect, social conditions adverse and above all age-long superstition and prejudice formed a barrier which custom and ignorance stiffened from day to day.

The programme of work was accordingly carefully planned so that the limited resources might be utilized to the best advantage. The first task was to create an atmosphere which would remove the apathy of the public towards the problem and stimulate interest in the new ideas about the disease which is no longer held to be beyond the physician's aid, but definitely within scientific control. To achieve this object a three-fold programme was adopted. It was decided that on the one hand research work must be intensified, and on the other people should be educated with regard to the main facts about the causation, prevention and treatment of leprosy and the means of obtaining the latest treatment of the disease.

5. The actual execution of this programme is apportioned between the headquarters and the provincial branches. Research, propaganda and training of doctors, which benefit the country as a whole, are in the charge of headquarters while the provincial branches are responsible for the provision of treatment to lepers and other objects of purely local scope, for which purpose about 50 per cent. of the entire income of the Association is made available to them. This is supplemented by grants from local Governments and local bodies, etc.

6. Research work has been carried on at the School of Tropical Medicine Calcutta, in co-operation with the authorities of the School and the Indian Research Fund Association. It has cost the Association a total sum of Rs. 2,73,000 during the last twelve years to end of 1936. Propaganda has been carried on by the publication of a variety of pamphlets, leaflets, posters, films and slides to educate the public to an appreciation of the true facts relating to leprosy. A quarterly journal "Leprosy in India" has been published to provide a medium for the exchange of ideas and experiences of the workers in the field of leprosy. A sum of about Rs. 89,000 has been spent on propaganda since the inception of the Association. Special courses of instruction in the diagnosis and treatment of leprosy have been held at Calcutta and Dighpali at which about 900 doctors from all over India and abroad have received instruction at a total cost of Rs. 78,000 to the Association. Until 1933 the travelling expenses of doctors attending these courses were paid by the Association, but now all such expenses are met by the doctors themselves or by those nominating them for the course. These specially trained doctors have in turn given

instruction to many doctors, and doctors with modern knowledge about the diagnosis and treatment of the leprosy are not now difficult to find in any province.

7. An extensive survey of selected areas was started by a special Survey Party in 1927 to find out the relative incidence of leprosy in different parts of India, the classes of people among whom it is most rife and the causes which underlie the high incidence. This work cost the Association a sum of Rs. 87,800 and the Party was dissolved at the end of 1931 after it had collected valuable data on the subject.

8. The work of the provision of treatment of lepers is undertaken by the 17 Provincial and State Branches of the Association all of which are doing good work within the limits of their financial resources. A large number of patients is now seeking treatment at the treatment clinics numbering over 1,100, and every Branch reports the beneficial results obtained after a regular and sufficiently long course of treatment. Such remarks as patients "discharged", "cured", "non-infectious", "symptom free", "disease arrested", "apparently cured", "decidedly improved", etc., are becoming quite common and when it is remembered that thousands of lepers are now under proper treatment and that one "cured" or "improved" case brings within the purview of the treatment centres more than a hundred disheartened lepers may be considered a hopeful sign in the campaign for the eradication of leprosy from India. That the British Empire Leprosy Relief Association has been able to play a part in heartening up a class of people suffering from age-long depression and distress encourages it to take an optimistic view of the future of the work before it.

List of Provincial and State Branches of the British Empire Leprosy Relief Association (Indian Council).

	Approximate number of leprosy clinics.	Number of Leper Hospitals.
1. Assam . . . . .	202	8
2. Baluchistan . . . . .	1	1
3. Bangalore . . . . .	1	1
4. Bengal . . . . .	200	5
5. Bihar . . . . .	63	6
6. Bombay . . . . .	38	12
* 7. Burma . . . . .	12	4
8. Central India . . . . .	22	1
* 9. Central Provinces . . . . .	32	7
10. Hyderabad British Administered Areas . . . . .	2	1 (Dichpali).
11. Madras . . . . .	433	9
12. Mysore . . . . .	6	1
13. North-West Frontier Province . . . . .	2	..
14. Orissa . . . . .	16	2
15. Punjab . . . . .	80	6
16. Rajputana . . . . .	7	..
17. United Provinces . . . . .	3	15
18. Western India States Agency . . . . .	5	1
Total . . . . .	1,124	78



MEMBERS OF THE GOVERNING BODY OF THE BRITISH EMPIRE LEPROSY RELIEF  
ASSOCIATION (INDIAN COUNCIL).

1. Colonel A. J. H. RUSSELL, C.B.E., K.H.S., I.M.S. (Chairman).
2. The Hon'ble Kunwar Sir JAGDISH PRASAD, C.S.I., C.I.E., O.B.E.
3. The Hon'ble Sir MUHAMMAD ZAFRULLAH KHAN, Bar.-at-Law.
4. Sir ERNEST BURDON, K.C.I.E., C.S.I., I.C.S.
5. Major-General E. W. C. BRADFELD, C.I.E., O.B.E., K.H.S., I.M.S.
6. Major-General G. G. TABUTEAU, D.S.O., K.H.S., A.M.S.
7. Lieut.-Colonel H. H. ELLIOT, M.B.E., M.C., M.B., F.R.C.S., I.M.S.
8. The Hon'ble Khan Bahadur Dr. Sir NASARVANJI CHOKSY, C.I.E. M.D.
9. The Hon'ble Rai Bahadur L. RAMSARAN DAS, C.I.E.
10. Dr. R. D. DALAL, C.I.E., M.L.A.
11. Mr. A. H. BYRT.
12. Mr. U. N. SEN, C.B.E.
13. Mrs. TODD.
14. Mr. A. D. MILLER.
15. Dr. R. G. COCHRANE, M.D., M.R.C.P.
16. Dr. JOHN LOWE, M.B., Ch.B.
17. Mr. K. K. CHETTUR, (Honorary Treasurer).
18. Sardar Bahadur BALWANT SINGH PURI, O.B.E. (Honorary Secretary).

5. LADY MINTO'S INDIAN NURSING ASSOCIATION.

The Lady Minto's Indian Nursing Association was founded in 1892 under the title of the "Up Country Nursing Association" primarily, though not exclusively, to provide Europeans with the skilled services of the Nursing profession.

If those days it was very difficult—often impossible—to secure a nurse in cases of serious illness. Families living in remote or small districts were frequently completely isolated and even if transport were available, the nearest hospital might be so far off that patients ran considerable risk if they could not be nursed in their own homes.

2. The Punjab and the United Provinces were the first provinces to consider the possibility of providing nurses for private work but it was not until 1906 that provision was made on a really adequate basis.

Lady Minto issued an appeal to the public both in India and England which met with a generous response, with the result that now Minto Sisters work in seven centres and it is rare for a subscriber to the Association in any part of India to be refused the services of a nurse in case of need.

3. The financial liabilities of the Association are met from five sources:—

Interest on the Endowment Fund.

Government Grant..

Donations.

Subscriptions.

Fees.

4. It is the practice of the Association to invite people to become annual subscribers. This carries with it two advantages; priority of claim to the services of a Sister, and a reduction in the fees paid for those services. The normal fee for non-subscribers is Rs. 14 per day, while for subscribers it varies from Rs. 6/8/- to Rs. 10 according to income. For maternity cases an additional fee of Re. 1 a day is charged in the case of subscribers.

5. The control of the Association is in the hands of two Committees—one in England and one in India.

The English Committee is responsible for the recruitment of the majority of the staff, but if it happens that suitably and fully trained women are obtainable in India, the Central Committee in India has the power to enlist them on the spot.

In addition to this duty the Indian Committee deals with all matters of administration, delegating to the Provincial Branches questions of local significance.

6. Branches have been founded in the Punjab, United Provinces, Bengal, Assam, Rajputana, Burma, Simla and Delhi, while the following Nursing Homes and Hospitals are staffed by Minto Sisters:—

Walker Hospital	} Simla.
Ripon Hospital	
Portmore Nursing Home	

Hindu Rao Hospital.	} Delhi.
Willingdon Nursing Home	

Georgina MacRobert Hospital, Cawnpore.

B. B. & C. I. Railway Hospital, Ajmer.

Kashmir Nursing Home, Srinagar.

7. At the end of the year 1937 the Association had in its employment:—

1 Chief Lady Superintendent.

4 Lady Superintendents.

74 Nursing Sisters.

## 6. LADY AMPTHILL NURSES' INSTITUTE AND THE SOUTH INDIAN NURSING ASSOCIATION.

In 1904 the Lady Ampthill Nurses' Institute was established by Her Excellency Lady Ampthill. From this Institute nurses could be supplied to all parts of the Presidency where the need for skilled nursing was very great.

2. In 1920 Her Excellency Lady Willingdon formed a general nursing Association known as the South Indian Nursing Association. Her scheme was to establish a system of nursing throughout South India after the model of Lady Minto Indian Nursing Association; to supply properly trained private nurses and midwives, at a scale of fees which would just make the Association self-supporting.

The two Associations were amalgamated in 1920, and since then have carried out useful work throughout the Madras Presidency.

3. No subsidy is received from the Madras Government but the Lady Minto Association pay annually a sum of Rs. 5,000, an agreed proportion of its Government grant.

## 7. INTERNATIONAL HEALTH DIVISION OF THE ROCKEFELLER FOUNDATION IN INDIA.

According to its rules the Rockefeller Foundation co-operates only with official bodies. In the field of public health it co-operates with governments in the development of general public health activities and the study and control of certain diseases.

The International Health Division of the Rockefeller Foundation began its co-operative work in India in the Madras Presidency in 1920 and in the beginning confined its activities to the treatment and prevention of hookworm disease. It is generally recognized that hookworm disease is a suitable point of attack as it is easily treated with effective drugs and as its prevention automatically prevents all soil borne diseases including other intestinal parasites, enteric fever, dysentery and cholera. This work still continues as a routine activity of the public health department but the assistance rendered in the beginning by the International Health Division has long since been withdrawn. The Division does not contribute towards the maintenance of work but towards its inauguration in the early stages. When the work is established, financial assistance is gradually withdrawn.

The present co-operative work of the International Health Division is carried out in the States of Mysore and Travancore and in the Provinces of Madras, United Provinces and Delhi. These activities consist of: training of medical officers by means of fellowships, special research in malaria, and assistance to demonstration health unit organizations amongst rural and semi-rural populations.

**2. Fellowships.**—It is recognized that the greatest benefits which public health would receive in India would come from the activities of the permanent health officers of the country and in order to assist in this work fellowships are granted to selected officers to study in India and in foreign countries. Fellowships are limited to one year or less for studies relating to public health subjects. Candidates are selected from those recommended by the Directors of Public Health Departments and include training in general public health and in research on public health subjects. At the end of his studies the fellow is expected to return to his post and undertake work for which he had been trained. Fellowships cannot be given to private individuals.

To further facilitate the training of officers, the Foundation assisted financially in establishing the All-India Institute of Hygiene and Public Health in Calcutta, but the maintenance and administration of the Institute is carried on by the Government of India.

Up to the end of 1936, sixty medical and scientific officers had been given fellowships. The candidates were proposed by the States of Mysore and Travancore and by the Provinces of Madras, Coorg, Assam, Bihar, Central Provinces, United Provinces, Delhi Province, the Punjab and by the Indian Research Fund Association, the Calcutta School of Tropical Medicine, the All-India Institute of Hygiene and Public Health and the King Institute of Preventive Medicine, Guindy. With a few exceptions all fellows have been Indians.

**3. Research in Malaria.**—Malaria is the most serious preventable disease in India and although knowledge concerning it has been gained along many lines, this knowledge is not yet sufficient to enable health departments to effect control measures in rural areas within reasonable economical bounds. Additional research is necessary. One of the Foundation's officers has carried on malaria studies in co-operation with the Government in Mysore State since 1927, and in 1936 another officer began studies in the Madras Presidency with headquarters at the King Institute and with field stations in rural sections of the Presidency. Both of these activities are still in progress. A malaria survey was carried out in a small portion of the Poona area of the Bombay Presidency by two other Foundation officers during the first seven months of 1937.

**4. Demonstration Health Units.**—Training and research would be incomplete unless there were opportunities for putting into practice the methods which have been studied. For that reason the International Health Division has entered into agreements with various governments to initiate what is known locally as health unit work. It is generally recognised that the usual district health work carried on in rural and semi-rural areas in India is inadequate in many respects and in particular in the relationship between the population and the number of workers. In health unit work this criticism is met and a definite organization consisting of a medical officer of health, health visitors, midwives and sanitary inspectors are set up in a selected area with a predetermined population and undertake all required public health activities. It is not feasible for economic or other reasons to organise the whole rural area of a province in this way but it is feasible and perhaps necessary for one such organisation to be established in a province to be used as a training ground for the health staff and for the development of methods of work and procedure. Co-operative arrangements of this sort are now in operation in Mysore, Travancore, Madras Presidency, United Provinces and Delhi Province. Plans for initiating similar work in other provinces are well advanced. The usual co-operative period is five years, the Division's contribution being on a yearly decreasing scale.

**5. These three activities fit in with the general schemes of health work now in progress in India.** The operations of the International Health Division in proportion to the total problem are small. This was understood from the beginning and it is one of the reasons for deciding to co-

operate with governments, which are permanent establishments, and to assist them in developing men and methods to meet the enormous health problems with which the country is faced.

## 8. KING GEORGE THANKSGIVING (ANTI-TUBERCULOSIS) FUND.

Tuberculosis control in India has developed slowly as compared with countries of the West and is still in its infancy. The creation of an All-India Organization for tuberculosis control as at present represented by the King George Thanksgiving Fund, was the result of a slow and gradual realisation of the increasing importance of tuberculosis as a killing and disabling disease.

In 1927 Lord Irwin, Viceroy and Governor-General of India, realised the gravity of the problem and wished to form a central organisation on the model of the National Tuberculosis Association of Great Britain. The opportunity came in 1929 when the recovery of His Majesty the late King Emperor George V from a serious illness evoked very warm felicitations from his subjects throughout the Empire. In India they found loyal expression in the form of a Thanksgiving Fund for the alleviation and prevention of disease. The Fund amounted to over Rs. 9½ lakhs and His Excellency the Viceroy appointed a small Advisory Committee consisting of the Hon'ble Member for Education, Health and Lands Department, Director-General, Indian Medical Service, and the Public Health Commissioner with the Government of India, to advise him on the merits of the various schemes submitted to him for utilisation of the Fund. After fullest consideration the Committee recommended that an anti-tuberculosis scheme was the one that was most likely to be of real service to India. Their recommendation was adopted in consultation with official and non-official opinion in different provinces.

2. The administration of the Fund was handed over to the Indian Red Cross Society for anti-tuberculosis work in India. The work was entrusted to an *ad hoc* committee, who appointed an Organising Secretary as their technical and propaganda officer. Thus came into being a special anti-tuberculosis organisation now known as the King George Thanksgiving (Anti-Tuberculosis) Fund.

3. The Fund is the nucleus of anti-tuberculosis campaign and represents the national effort for fight against tuberculosis. The Director-General, Indian Medical Service, is the Chairman and is assisted by a Committee of 12 members, both official and non-official including ladies. All its activities are conducted on the interest of the Fund (Rs. 53,000 a year). The income being limited, it is devoted at present entirely to prevention and educational measures. The following is a review of the main activities.

**Provincial and State Branches.**—All the work is done through the Provincial and State Branches of which 16 have so far been organised in provinces and in important Indian States. At present they function as Sub-Committees of the Provincial and State Red Cross Societies. These committees include the heads of the Medical and Public Health Departments, and public men representing all shades of opinion. The Committees receive financial assistance from the Central Fund and carry out educative propaganda through material prepared at headquarters.

**Propaganda and Publicity.**—The chief aim of the Fund being the organisation of an educational campaign against tuberculosis, the headquarters prepares and publishes a variety of material for distribution through various agencies engaged in prevention and control of tuberculosis. This includes charts, picture posters, pamphlets, leaflets, slides and films. Education is further helped by lectures, talks and broadcast through various agencies and institutions. Maternity and Child Welfare organisation and various social organisations like All India Women Association have helped us to carry this education to larger and appreciative audiences.

**Training of Tuberculosis Workers.**—Field work which is an important part of tuberculosis control, requires workers trained in up-to-date methods of diagnosis, treatment and prevention. Post-graduate courses have been organised since 1935 at Calcutta, Madras and Bombay with the help of the All-India Institute of Hygiene and Public Health at Calcutta and the Tuberculosis Association of Bengal and the Principals of the Madras and Bombay Medical Colleges and with the close co-operation from the authorities of the Special Tuberculosis Institutions in these Provinces. In time the facilities may be extended to other teaching institutions. 155 doctors have so far been trained at these courses. The Fund Committee recommends post-graduates for special study in Rome through the help of the International Union against Tuberculosis, Paris.

A few health visitors have also been trained in tuberculosis work at sanatoria.

**Tuberculosis Dispensaries.**—The Fund Committee is now giving its attention to the proper organisation of these field units, on which the whole control of the disease largely depends, and has helped in the starting of tuberculosis dispensaries in Bengal, Bombay, Punjab, Central Provinces, Bihar, Assam and Mysore State and is helping their continued activities in spite of the Fund's slender resources.

**Surveys.**—These are very expensive undertakings, but the Fund has financed tuberculosis surveys in selected areas, to study the relationship of environmental, social and economic factors to tuberculosis which have yielded valuable information.

**Special Tuberculosis Number of the "Indian Medical Gazette".**—The Fund with the help of the editor of the "Indian Medical Gazette" produced a special Tuberculosis Number of the Gazette in April 1937. This special issue proved very popular amongst medical men in the country and has helped to concentrate attention on the clinical and social problems of tuberculosis. It has been decided to publish in September 1938 another special number of the "Indian Medical Gazette" devoted mainly to the preventive aspects of tuberculosis.

**Hassan Masud Suhrawardy Anti-Tuberculosis Challenge Shield Competition.**—The Fund awards a silver Challenge Shield annually to any corporation, municipal council or municipal committee or any other organisation, association or committee doing anti-tuberculosis work in British India, or an Indian State for showing the best anti-tuberculosis activities during the year. Consequent on the growth of anti-tuberculosis activities as the result of seven years' propaganda and preventive campaign every year brings entries showing improved plan and extended scope of work.

**Anti-Tuberculosis Conferences.**—A conference was held in 1934 to which representatives of Provincial and State Sub-Committees, Sanatoria, Indian Research Fund Association and All-India Institute of Hygiene were invited.

## 9. TRAINED NURSES' ASSOCIATION OF INDIA.

The Trained Nurses' Association of India was formed in the year 1905 and was registered under the Societies' Registration Act in 1917, for the purpose of—

- (a) upholding the dignity and honour of the Nursing Profession ;
- (b) promoting a corporate spirit among all nurses for their common good ;
- (c) enabling nurses to take counsel together on matters affecting their profession ;
- (d) providing a medium through which nurses can express themselves in regard to legislation that affects the profession; and
- (e) publishing and disseminating amongst its members and others up to date information regarding nursing in all its branches.

The Nursing Journal of India, December 1936, published the following Nurses Charter adopted by the Trained Nurses' Association of India :

- “(1) Each province should take rapid steps to bring a Nurses' Registration Act into force with a view to an ultimate All-India Registration Act.
- (2) That Nurse Registrars should be appointed in the provinces in which a Registration Act is in force. Her duties should include the inspection of Nurses' Training Schools.
- (3) Each province should have a Directress of Nursing. She should work in conjunction with but not under the Surgeon General and should have direct access to Government on all nursing matters.
- (4) TO RAISE THE STATUS AND STANDARD OF NURSING.  
Nursing should not be classed as 'medical subordinate' but Provincial Nursing Services should be formed with recognised senior officers at the head, who should be given gazetted rank.
- (5) The Matron Superintendent should have complete control of the Nursing Staff with power to recruit candidates, and dismiss unsuitable ones.
- (6) There should be an adequate proportion of trained nursing staff to untrained in all hospitals.
- (7) The training of nurses should not be regarded simply as a means of providing probationers and for ward work.
- (8) No hospital should be without adequate Night Nursing Staff in charge of a fully trained and experienced Sister on duty at night.
- (9) The ratio of nurses to patients should be that laid down by the International Council of Nurses at Geneva.

- (10) Suitably furnished Nurses' Quarters should be provided, with adequate sanitary accommodation, and messing arrangements, in charge of a Home-Sister or other competent management.
- (11) No nurse should be expected to work more than a 60 hour week.
- (12) The Sister Tutor system should be encouraged. Every Training School, with over 150 beds should aim at employing a Sister Tutor and more Preliminary Training Schools should be founded.

A minimum standard of education should be established for probationers on entry.

There should be adequate facilities for the theoretical and practical side of the nurse's training. There should also be adequate nursing Representation on the Examining Boards.

- (13) There should be facilities for recreation when the nurses are off duty.
- (14) It is inadvisable that married women should be allowed to retain their posts in hospital.
- (15) The definition of a trained nurse shall be as stated in the bye-laws of the Trained Nurses' Association of India.

"A Trained Nurse—A nurse who has certificate of three years' training from a recognized training school."

The membership of the Association including student nurses numbered 2,462 up to March 1938. The Association publishes the Nursing Journal of India which is supplied free to members, and contains information on nursing methods and procedure as well as news of the nursing world.





The following formula was forwarded to provincial Administrative Medical Officers for working out "Average cost per in-patient per month" in the case of hospitals and dispensaries included in Appendix I.

"Divide the total expenditure of the hospital of each category for 1937 by the daily average number of in-patients during that year and then divide the result by twelve."

It has been found impossible to calculate the average cost according to the formula given above in all cases; the figures in the column relating to average cost are, therefore, not comparable.

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## **APPENDIX I.**

**STATISTICS REGARDING HOSPITALS AND DISPENSARIES IN  
BRITISH INDIA.**

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Categories—

- G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE.

Province—MADRAS

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
ANANTAPUR DISTRICT.															
(At Headquarters.)															
Government Headquarters Hospital, Anantapur.	G	General	50	76.74	262.59	Rs. A. P. 1 2 6	3	1	..	..	2	..	1	5	..
(Others.)															
NORTH ARCOT DISTRICT.															
(At Headquarters.)															
Government Headquarters Hospital, Vellore.	G	"	91	144.48	436.69	3 2 0	5	4	..	..	4	..	2	..	..
Police Training School Hos-pital, Vellore.	G	Men	24	9.94	24.63	0 14 7	1	..	..	..	..	..	..	..	..
Medical School Hospital, Vellore.	MN	Women	250	161.00	205.00	2 11 9	7	5	1	2	17	47	..	14	..

NH



Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
CHINGLEPUT DISTRICT.							Rs. A. P.									
Government Headquarters Hospital, Chingleput.	G	General	83	85.53	360.64	1 5 4	4	..	..	2	..	2	..	..	..	
(At Headquarters.)																
Government Hospital, Conjeevaram.	G	"	45	61.65	394.86	1 2 2	3	..	..	2	..	2	..	..	..	
Church of Scotland Mission Hospital, Conjeevaram.	MN	"	45	4.50	54.50	0 12 0	2	1	..	1	..	1	..	..	1	
Church of Scotland Mission Hospital, Elkadu.	MN	"	64	56.90	82.20	6 8 0	3	..	..	1	2	11	2	4	..	
CHITTOOR DISTRICT.																
(At Headquarters.)																
Government Headquarters Hospital, Chittoor.	G	"	74	99.17	365.09	40 6 8	5	1	..	3	..	..	..	6	..	





## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

TABLE I—*contd.*

Province—MADRAS.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
EAST GODAVARI DISTRICT.							Rs. A. P.									
(At Headquarters.)																
Government Headquarters Hospital, Cocanada.	G	General	71	209-02	207-52	21 13 2	5	1	..	..	5	..	..	..	..	..
(Others.)																
Government Hospital—Rajahmundry . . . .	G	"	63	61-07	334-18	35 11 0	3	1	..	..	2	..	1	..	..	..
Amalapuram . . . .	G-	"	22	15-86	433-40	66 12 0	2	1	..	..	..	..	2	..	..	..
United Lutheran Church Mission Hospital for Women and Children, Rajahmundry.	MN	Women	75	45-00	32-00	64 0 0	3	..	1	1	4	19	4	7	..	..
Canadian Baptist Mission Hospital, Pithapuram.	MN	"	100	63-30	36-10	1 12 0	5	..	1	2	6	38	6	7	..	..
Canadian Baptist Mission Bethesda Hospital, Pithapuram.	MN	General	53	22-00	18-00	65 4 0	2	..	1	1	..	2	4	..	..	..

## WEST GODAVARI DISTRICT.

## (At Headquarters.)

Government Headquarters  
Hospital, Ellore.

G

"

50

65-30

475-88

36 0 0

4

1

..

..

2

..

1

..

..

## (Others.)

Government Hospital—

Tanuku . . . .

G

"

22

24-74

189-71

46 12 0

2

1

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..

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1

..

..

Narsapur . . . .

G

"

20

21-19

709-63

31 0 0

2

1

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1

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..

Godavari Delta Mission Hos-  
pital, Narsapur.

MN

"

26

10-01

72-66

..

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1

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..

2

..

1

..

..

Adventist Mission Hospital,  
Narsapur.

MN

"

28

8-50

18-00

..

1

..

1

..

2

..

2

..

..

Star of Hope Mission Hospital,  
Aavid.

MN

"

24

12-00

27-00

33 0 0

1

1

..

..

3

..

3

..

..

Mission Hospital, Bhinava-  
ram.

MN

"

28

23-00

57-00

..

2

..

1

..

4

..

3

..

..

## GUNTUR DISTRICT.

## (At Headquarters.)

Government Headquarters  
Hospital, Guntur.

G

"

200

188-39

468-83

30 15 0

9

2

..

1

5

10

3

8

..

Kugler Hospital, Guntur

MN

"

150

89-00

96-00

29 0 0

5

2

1

2

10

27

10

27

..

St. Joseph's Hospital, Guntur

MN

Women

84

84-00

617-00

..

2

..

1

2

2

5

2

4

..

Categories—

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

\* Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Sidpendary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
GURURU DISTRICT— <i>contd.</i>															
(Others.)															
United Lutheran Church Mis-sion Hospital, Rentacherla.	MN	General	40	36-50	39-74	1 0 0	2	..	1	..	4	..	4	..	1
Salvation Army Hospital, Niduthole.	MN	"	30	25-35	37-07	36 0 0	2	..	..	..	5	..	5	..	..
Beer Hospital, Cherla . .	MN	"	88	32-79	66-00	0 13 0	3	..	1	..	5	19	4	4	..
Clough Memorial Hospital, Ongole.	MN	"	120	101-00	104-00	26 0 0	4	..	2	2	8	31	6	6	15
Government Hospital, Tenali	G	"	40	68-33	390-33	28 3 0	3	1	..	..	2	..	1	..	..
Government Hospital, Ongole	G	"	22	15-83	186-10	57 14 0	1	1	..	..	..	..	1	..	..
SOUTH KANARA DISTRICT.															
(At Headquarters.)															
Government Headquarters Hospital, Mangalore.	G	Men	100	153-00	623-09	23 3 0	5	4	..	1	3	4	..	..	..

Lady Goshen Hospital, Mangalore.	G	Women	60	97-25	280-85	29	2	0	2	1	..	..	3	..	2	9	..
(Others.)																	
Government Hospital, Udipi.	G	General	30	44-07	227-48	31	10	7	2	1	..	..	1	..	1	..	..
Government Hospital, Puttur.	*G	"	20	19-00	116-91	52	8	5	2	..	..	..	..	..	1	..	..
KISTNA DISTRICT.																	
(At Headquarters.)																	
Government Headquarters Hospital, Masulipatam.	G	General	109	179-01	238-33	18	0	8	5	..	..	..	7	..	2	..	..
(Others.)																	
Government Hospital, Bezawada.	G	"	53	51-93	244-15	40	11	0	3	..	..	..	2	..	1	..	..
Mission Hospital, Vuyyur.	MN	Women	50	37-00	37-00	120	0	0	2	..	1	..	4	..	1	..	..
Mission Hospital, Nuzvid.	MN	General	45	26-00	20-00	90	0	0	2	..	1	1	2	16	..	..	..
KURNOOL DISTRICT.																	
(At Headquarters.)																	
Government Headquarters Hospital, Kurnool.	G	"	100	109-18	163-70	31	12	1	5	1	..	..	6	..	1	..	..
St. Teresa Hospital, Kurnool	MN	Women	40	40-00	150-00	..	..	..	1	..	..	6	6	3	9	3	1

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
KURNOOL DISTRICT— <i>contd.</i> <i>(Others.)</i>						Rs. A. P.									
St. Memburg Hospital, Nandyal.	MN	Women	26	21-00	41-00	35 10 4	14	2	1	..	5	..	3	..	..
Municipal Hospital, Nandyal	MP	General	33	36-52	125-82	19 2 11	1	..	..	..	..	..	1	..	..
MADURA DISTRICT. <i>(At Headquarters.)</i>															
Government Headquarters Hospital, Madura.	G	"	242	365-46	251-42	29 14 7	10	12	1	1	16	..	2	..	2
Willis F. Pierce Memorial Hospital, Madura.	MN	Men	85	71-24	29-28	46 12 2	4	..	1	..	..	..	..	..	16
American Mission Hospital for Women and Children, Madura.	MN	Women	166	138-50	53-28	21 11 0	4	..	..	2	8	40	..	8	..



TABLE I—*contd.*

Province—MADRAS.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
Nellore District.															
(At Headquarters.)															
Government Headquarters Hospital, Nellore.	G	General	78	106.38	260.13	Rs. A. P. 31 8 0	4	2.	..	..	5	..	..	..	..
American Baptist Mission Hospital for Women and Children, Nellore.	MN	Women	112	72.00	66.00	1 4 0	5	..	2	..	6	32	6	7	..
Roman Catholic St. Joseph Maternity Hospital, Nellore.	MN	"	65	60.00	250.00	..	1	..	1	5	1	..	10	12	..
Victoria Jubilee Hospital for Women and Children, Nellore.	MP	"	36	32.0	43.00	9 11 0	1	..	..	..	1	..	1	..	..

(Others.)

Nil.

## THE NILGIRIS DISTRICT.

(At Headquarters.)

Government Headquarters  
Hospital, Ootacamund.Lawrence Memorial School  
Hospital, Lovedale.

(Others).

Government Lawley Hospital,  
Coonoor.Government Hospital,  
Gudalur.

## RAMNAD DISTRICT.

(At Headquarters.)

Government Headquarters  
Hospital, Ramnad.

St. Martins Hospital, Ramnad

(Others.)

Swedish Mission Hospital,  
Thrupattur.Women and Children Hos-  
pital, Kanadu-Kathan.

	G	General	102	93-51	172-02	2	9	2	4	4	..	1	7	..	1	..	..
	P	"	67	9-40	71-94	..	1	..	2	..	..	..	..	..	..	..	..
	G	"	54	92-98	173-37	2	2	3	4	..	..	4	4	..	1	..	..
	G	"	32	27-11	38-05	1	6	0	2	..	..	1	1	..	1	..	..
	G	General	37	62-34	235-74	30	10	6	3	..	..	2	2	..	1	..	..
	MN	Women	80	50-30	78-90	19	8	0	3	..	..	1	4	13	..	7	..
	MN	General	110	100-07	164-7	39	0	0	6	..	1	2	5	20	..	..	3
	DB	Women	32	30-33	50-17	10	10	3	1	..	..	..	1	..	1	..	..



Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

TABLE I—*contd.*

Province—MADRAS.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
SALEM DISTRICT.						Rs. A. P.									
(At Headquarters.)															
Government Headquarters Hospital, Salem.	G	Men	84	116-13	411-94	40 0 9	5	1	..	1	3	4	..	..	..
Queen Alexandra Hospital, Salem.	G	Women	21	24-80	149-20	15 2 4	2	..	..	..	1	..	2	1	..
(Others.)															
TANJORE DISTRICT.															
(At Headquarters.)															
Government Headquarters Hospital, Tanjore.	G	General	224	358-66	599-53	1 5 0	14	3	1	1	11	15	2	5	..

N<sup>o</sup>

(Others.)

Government Hospital, Negapatam.	G	"	84	87-37	312-69	1 0 6	4	..	..	..	3	..	2	..	..
Government Hospital, Kumbakonam.	G	"	92	93-25	169-13	30 13 9	4	1	..	..	3	..	1	..	..
Government Hospital, Mayavaram.	G	"	24	27-19	229-18	48 5 4	2	..	..	..	..	..	1	..	..
Government Hospital, Mannargudi.	G	"	42	53-00	230-82	31 14 9	2	1	..	..	2	..	1	..	..
St. Ann's Women and Children Hospital, Kumbakonam.	MN	Women	65	76-33	110-92	22 2 0	2	..	1	2	..	..	5	..	..
Tinnevely District.															
(At Headquarters.)															
Government Headquarters Hospital, Palamcottah.	G	General	68	90-20	283-26	34 11 0	4	4	..	..	4	..	..	..	..
(Others.)															
Government Women and Children Hospital, Vannarpet.	G	Women	43	45-28	113-82	35 6 10	2	..	..	..	2	..	1	..	..
Government Hospital, Tuticorin.	G	General	50	57-22	469-16	57 12 9	4	2	..	..	3	..	2	..	..
St. Luke's Hospital, Vazareth.	MN	"	36	30-19	75-84	1 8 0	2	..	..	..	2	..	1	..	1
Society for Preaching Gospel Immanuel Hospital, Idayangudi.	MN	"	25	6-02	65-73	..	1	..	..	..	..	..	1	..	..

TABLE I—*contd.*

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
TRICHINOPOLY DISTRICT.							Rs. A. P.									
(At Headquarters.)																
Government Headquarters Hospital, Trichinopoly.	G	General	114	158.96	397.46	25 0 0	5	6	..	..	6	..	3	..	..	
(Others.)																
Government Hospital—																
Srirangam . . . . .	G	"	20	16.95	242.61	45 0 0	2	1	..	..	..	..	1	..	..	
Karur . . . . .	G	"	21	22.04	355.64	55 0 0	2	..	..	..	..	..	1	..	..	
VIZAGAPATAM DISTRICT.																
(At Headquarters.)																
King George Hospital, Vizagapatam.	G	"	348	423.24	536.40	3 0 0	27	2	1	5	24	54	2	6	..	

Victoria Hospital for Women and Children, Vizagapatam.	P	Women	66	28.61	22.53	3 0 0	4	..	1	1	1	3	5	..	..
(Others.)															
Maharaja's Hospital, Vizianagaram.	P	General	34	33.9	604.04	2 8 0	4	..	..	..	..	..	..	1	..
Maharani's Gosha Hospital, Vizianagaram.	P	Women	20	10.65	153.26	3 4 6	1	..	..	..	1	..	..	..	..
MADRAS DISTRICT.															
(At Headquarters.)															
Government General Hospital, Madras.	G	General	678	775.70	1,368.54	75 13 0	27	57	1	12	42	115	..	..	2
Government Rayapuram Hospital, Madras.	G	"	354	534.65	1,114.72	44 5 0	18	16	1	1	17	41	..	..	1
Government Royapettah Hospital, Madras.	G	"	100	132.70	605.73	53 15 8	5	12	1	..	9	..	..	..	..
Victoria Caste and Gosha Hospital, Madras.	G	Women	172	239.40	309.60	58 4 8	7	..	1	2	17	30	..	14	..
Government Hospital for Women and Children, Madras.	G	"	265	283.39	204.84	82 2 6	11	21	1	4	27	62	3	47	..
Kalyani Hospital, Mylapore, Madras.	MN	"	112	84.00	66.00	34 9 9	4	1	1	1	9	10	11	4	..
Christina Rainy Hospital, Tandairpet, Madras.	MN	"	106	102.00	70.00	20 0 0	4	..	1	1	12	27	6	6	..

TABLE II.

Province—MADRAS.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
<b>ANANTAPUR DISTRICT.</b>															
Government . . . .	4	General	30	19-00	925-27	4 3 0	6	..	..	..	..	..	4	..	..
District Board . . . .	1	"	12	1-01	157-51	1 12 5	2	..	..	..	..	..	1	..	..
Private . . . . .	1	"	18	19-10	166-60	16 4 0	5	..	..	..	1	..	..	..	..
<b>NORTH ARCOT DISTRICT.</b>															
Government . . . .	2	General	17	20-10	370-54	1 6 3	2	..	..	..	..	..	2	..	..
Government . . . .	1	Women	4	8-90	104-44	1 1 3	1	..	..	..	..	..	1	..	..
Municipal . . . . .	1	General	16	13-13	137-78	1 15 6	1	..	..	..	..	..	1	..	..
Municipal . . . . .	1	Women	2	0-43	187-92	2 5 0	1	..	..	..	..	..	1	..	..
District Board . . . .	8	General	34	20-70	1,347-83	5 14 9	11	..	..	..	..	..	8	..	..
District Board . . . .	2	Women	7	1-13	217-92	0 1 9	2	..	..	..	..	..	2	..	..



TABLE II—*contd.*

Province—MADRAS.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
<b>CUDDAPAH DISTRICT.</b>															
Government . . . . .	2	General	15	21.12	126.98	43 10 8	3	..	..	..	..	..	2	..	..
Missionary . . . . .	1	"	4	4.00	33.00	37 8 0	1	..	..	..	1	..	..	..	1
<b>EAST GODAVARI DISTRICT.</b>															
Government . . . . .	3	General	25	24.50	412.81	67 4 0	4	1	..	..	..	..	3	..	..
Government . . . . .	2	Women	32	26.91	164.18	50 10 0	2	..	..	..	1	..	3	..	..
District Board . . . . .	5	General	53	30.67	823.88	110 9 0	8	1	..	..	..	..	5	..	..
Missionary . . . . .	1	"	4	..	5.00	..	..	1	..	..	..	1	..	..	..
<b>WEST GODAVARI DISTRICT.</b>															
Government . . . . .	1	General	11	9.73	144.31	53 13 10	1	..	..	..	..	..	1	..	..
District Board . . . . .	1	"	10	9.00	116.00	70 2 0	1	..	..	..	..	..	1	..	..
Missionary . . . . .	1	"	18	18.00	16.00	10 8 0	2	..	..	..	1	..	1	..	..

# QUENTUR DISTRICT.

Government	2	"	22	20-70	721-30	193 0 0	4	1	..	..	..	2	..	..	..
District Board	8	"	18	12-30	558-00	319 0 0	4	..	..	..	..	3	..	..	..
SOUTH KANARA DISTRICT.															
Government	2	"	19	27-04	274-83	60 1 7	2	1	..	..	..	2	..	..	..
District Board	9	"	50	35-75	1,424-28	257 10 11	9	2	..	..	..	9	..	..	..
KISTNA DISTRICT.															
Government	3	"	22	27-08	641-21	92 15 10	7	1	..	..	..	3	..	..	..
District Board	4	"	27	22-90	619-17	86 0 5	4	..	..	..	..	4	..	..	..
Missionary	1	"	16	9-00	39-00	18 0 0	2	..	1	..	..	1	..	..	..
Missionary	2	Women	31	42-00	44-00	18 9 5	3	..	..	2	..	1	..	..	..
KURNOOL DISTRICT.															
Government	3	General	16	17-52	287-88	194 7 10	3	..	..	..	..	2	..	..	..
District Board	5	"	15	3-39	486-25	44 3 0	5	..	..	..	..	3	..	..	..
Missionary	1	"	14	8-00	837-00	85 4 0	2	..	..	1	..	..	..	..	1
MADURA DISTRICT.															
Government	4	General	48	59-56	225-90	50 5 6	4	1	..	..	1	4	..	..	..
Municipal	5	"	64	43-36	183-53	48 0 9	5	..	..	..	..	5	..	..	..
District Board	3	"	20	20-28	187-31	68 2 7	3	..	..	..	..	3	..	..	..
Private	1	"	11	8-41	30-58	10 6 8	4	..	..	..	..	..	..	..	..
Missionary	1	"	15	2-30	25-12	105 4 0	1	..	..	..	..	..	..	..	1



TABLE II—*contd.*

Province—MADRAS.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.										
							Stipendiary.	Honorary.	Matron.	Asstt. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.				
MALABAR DISTRICT.																			
Government . . . . .	1	General	19	26-19	130-73	Rs. A. P. 9 12 4	1	..	..	..	..	..	1	..	..	..	..	..	
District Board . . . . .	16	"	88	40-23	1,587-74	476 1 6	16	..	..	..	..	..	16	..	..	..	..	..	
NEELORE DISTRICT.																			
Government . . . . .	5	"	39	15-89	609-61	639 15 0	6	..	..	..	..	..	6	..	..	..	..	..	
District Board . . . . .	4	"	30	16-15	430-12	294 14 0	4	..	..	..	..	..	4	..	..	..	..	..	
THE NILGIRIS DISTRICT.																			
District Board . . . . .	2	"	28	17-74	93-69	1 5 11	2	..	..	..	..	..	1	..	..	..	..	..	
Missionary . . . . .	1	"	14	0-71	15-53	1 12 0	1	1	..	..	1	..	..	..	..	..	..	..	
RAMNAD DISTRICT.																			
Government . . . . .	4	"	59	14-47	212-00	68 0 4	7	1	..	..	..	..	4	..	..	..	..	..	

Municipal	1	Women	10	4-07	90-03	74	4	0	1	..	..	..	..	1	..	..	..
District Board	1	General	4	4-77	164-05	46	2	4	1	..	..	..	..	1	..	..	..
District Board	1	Women	7	5-09	224-89	23	9	0	1	..	..	..	..	1	..	..	..
Private	2	General	29	10-12	78-50	48	9	7	2	..	..	..	1	1	..	..	..
Salem District.																	
Government	6	General	64	44-03	1,024-35	214	13	0	9	..	..	..	..	6	..	..	..
District Board	9	"	52	23-27	1,003-77	345	8	1	9	..	..	..	..	10	..	..	..
Tanjore District.																	
Government	2	General	26	26-63	257-74	117	9	3	2	..	..	..	..	2	..	..	..
District Board	5	"	48	25-67	526-29	194	12	0	5	..	..	..	..	5	..	..	..
Tinnevely District.																	
Government	2	General	20	9-53	283-28	114	5	6	2	..	..	..	..	2	..	..	..
Municipal	1	"	12	4-84	186-08	204	9	8	2	..	..	..	..	2	..	..	..
District Board	4	"	38	28-97	496-41	211	1	0	5	..	..	..	..	4	..	..	..
Missionary	4	"	27	3-48	225-45	24	1	9	4	..	..	..	..	2	..	..	..
Tiruchinopoly District.																	
Government	1	General	8	6-13	110-46	87	0	0	1	..	..	..	..	1	..	..	..
District Board	4	"	16	2-96	406-54	531	0	0	4	..	..	..	..	4	..	..	..
Missionary	8	"	..	0-30	20-00	..	..	..	1	..	..	..	..	1	..	..	..

TABLE II—*concd.*

Province—MADRAS.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 19...*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
VIZAGAPATAM DISTRICT.																		
Government	6	General	84	54.13	1,285.14	Rs. A. P. 1 6 6	6	..	..	..	..	..	..	6	..	..	..	..
District Board	12	"	85	73.87	1,702.66	0 7 10	12	..	..	..	..	..	..	12	..	..	..	..

TABLE III.

Province—MADRAS.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
ANANTAPUR DISTRICT.					Rs. A. P.					
District Board . . . . .	22	General	1,447.75	164 0 0	22	..	..	13	..	
NORTH ARCOT DISTRICT.										
Municipal . . . . .	1	"	200.21	298 7 2	1	..	..	1	..	
District Board . . . . .	4	"	75.45	301 5 4	4	..	..	4	..	
SOUTH ARCOT DISTRICT.										
Government . . . . .	1	"	15.10	99 0 0	1	..	..	1	..	
Municipal . . . . .	2	Men	165.18	339 0 0	3	..	..	2	..	
Municipal . . . . .	1	Women	71.61	243 0 0	1	..	..	1	..	
District Board . . . . .	28	General	80.35	216 0 0	28	..	..	21	..	
Private . . . . .	3	"	71.6	328 0 0	5	..	..	1	3	
BELLARY DISTRICT.										
Government . . . . .	1	"	39.02	411 0 0	1	..	..	1	..	
Municipal . . . . .	1	"	69.58	408 0 0	1	..	..	1	..	

## Province—MADRAS.

TABLE III—*contd.*

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
BELLARY DISTRICT— <i>contd.</i>									
District Board	7	General	201-98	Rs. A. P. 2,057 0 0	7	..	..	7	..
Private	2	"	51-60	..	2	..	..	..	..
CHINGLEPUT DISTRICT.									
Government	3	"	194-38	386 4 3	3	..	..	3	..
Municipal	2	"	161-00	152 8 0	2	..	..	..	..
District Board	16	"	98-94	251 3 2	16	..	..	15	..
Private	15	"	58-10	288 1 6	15	..	..	12	..
CHITTOOR DISTRICT.									
District Board	23	"	1,709-69	242 8 0	23	..	..	16	..
Private	4	"	202-40	205 6 0	4	..	..	2	..
COMBATORE DISTRICT.									
Government	1	"	85-74	292 0 0	1	..	..	..	..

Municipal . . . . .	3	"	988-24	593 15 0	5	3	..	1	..
District Board . . . . .	15	"	1,097-50	282 13 5	15	4	..	13	..
CUDDAPAH DISTRICT.									
Government . . . . .	1	"	89-29	360 0 0	1	..	..	1	..
Municipal . . . . .	1	"	281-24	198 0 0	1	..	..	1	..
District Board . . . . .	7	"	127-77	259 0 0	7	..	..	7	..
Private . . . . .	11	"	48-57	95 0 0	11	..	..	6	..
EAST GODAVARI DISTRICT.									
Government . . . . .	3	"	113-25	317 0 0	3	..	..	1	..
Municipal . . . . .	2	"	434-04	376 0 0	2	..	..	1	..
District Board . . . . .	58	"	5,111-36	160 0 0	58	..	..	35	..
Private . . . . .	2	"	137-30	209 0 0	3	..	..	..	..
Missionary . . . . .	1	"	106-12	291 0 0	1	..	..	1	..
WEST GODAVARI DISTRICT.									
Government . . . . .	1	"	150-26	441 0 0	1	..	..	1	..
District Board . . . . .	26	"	505-23	190 5 9	26	..	..	12	..
Private . . . . .	1	"	24-22	149 6 8	1	..	..	..	..
GUNTUR DISTRICT.									
Government . . . . .	1	"	103-50	427 0 0	1	..	..	1	..
Municipal . . . . .	1	Women	150-80	270 0 0	1	..	..	1	..

TABLE III—*contd.*

Province—MADRAS.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
GUNTUR DISTRICT—contd.									
District Board	30	General	2,086-30	Rs. A. P. 3,507 0 0	31	1	..	22	..
Private	4	"	201-98	606 0 0	3	..	..	3	..
Missionary	2	"	72-00	30 0 0	2	2	..	4	..
SOUTH KANARA DISTRICT.									
Government	1	"	83-46	334 6 5	..	..	..	1	..
District Board	3	"	253-79	313 10 1	..	..	..	3	..
Private	1	Men	12-46	..	..	..	..	..	..
KURNA DISTRICT.									
District Board	24	General	75-30	224 11 6	34	..	..	17	1
Private	8	"	84-00	250 0 0	1	..	..	1	..

## KURNOOL DISTRICT.

Government	1	"	29-46	381 0 0	1	..	1	..
Municipal	2	"	400-59	592 0 0	2	..	1	..
District Board	11	"	1,003-09	2,167 7 0	11	..	2	..
Private	11	"	451-76	721 15 0	11	..	1	..
Missionary	2	"	65-00	150 0 0	2	..	..	..

## MADURA DISTRICT.

Government	1	"	4-43	232 2 11	1	..	..	..
Municipal	6	"	285-98	321 14 2	6	..	5	..
District Board	29	"	902-29	202 11 4	30	..	25	..
Private	1	"	53-49	579 11 8	..	..	..	..
Missionary	1	"	0-90	46 7 3	..	..	..	..

## MALABAR DISTRICT.

Municipal	7	"	1,239-13	1,969 0 0	5	2	4	..
District Board	34	"	1,621-26	4,680 1 2	34	..	26	..
Private	3	"	76-37	716 0 0	4	..	..	..

## NELLORE DISTRICT.

District Board	19	"	1,212-33	4,026 1 8	19	..	16	..
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TABLE III—*concl.*

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
THE NILGIRIS DISTRICT.									
Government . . . . .	2	General	33.75	Rs. A. P. 304 6 0	2	..	..	..	..
Municipal . . . . .	2	"	90.10	278 11 0	2	..	..	..	..
District Board . . . . .	4	"	39.49	187 6 0	4	..	..	1	..
Private . . . . .	4	"	68.83	215 10 0	4	..	1	1	..
RAMNAD DISTRICT.									
Government . . . . .	3	"	107.08	341 2 2	3	..	..	2	..
Municipal . . . . .	2	"	188.71	315 4 0	3	1	..	2	..
Municipal . . . . .	1	Women	132.54	237 13 4	1	..	..	1	..
District Board . . . . .	41	General	82.38	234 13 11	43	..	..	32	..
Private . . . . .	4	"	105.00	223 12 5	4	..	..	4	..
SALEM DISTRICT.									
Municipal . . . . .	1	"	157.14	299 0 0	1	..	..	..	..
District Board . . . . .	31	"	887.36	186 8 0	31	..	..	12	..

Private . . . . .	1	"	35-00	175 0 0	1	..	..	..	..	..	..	..
Missionary . . . . .	1	"	26-00	281 0 0	1	..	..	..	..	..	..	..
TANJORE DISTRICT.												
Municipal . . . . .	4	"	929-76	1,702 1 7	4	..	..	..	1	..	..	..
District Board . . . . .	65	"	3,676-61	10,889 5 7	65	..	..	..	50	..	..	..
TINNEVELLY DISTRICT.												
Municipal . . . . .	4	"	487-79	1,218 0 0	4	..	..	..	2	..	..	..
District Board . . . . .	42	"	2,504-00	6,844 0 0	43	..	..	..	26	..	..	..
Private . . . . .	2	"	122-47	308 0 0	2	..	..	..	..	..	..	..
Missionary . . . . .	2	"	46-00	217 0 0	2	..	..	..	..	..	..	..
TRICHINOPOLY DISTRICT.												
Municipal . . . . .	4	"	1,333-00	529 0 0	6	..	..	..	..	..	..	..
District Board . . . . .	34	"	719-00	204 0 0	34	..	..	..	20	..	..	..
VIZAGAPATAM DISTRICT.												
Government . . . . .	7	"	369-37	343 1 10	7	..	..	..	3	..	..	..
Municipal . . . . .	4	"	748-43	328 8 7	4	..	..	..	1	..	..	..
District Board . . . . .	46	"	2,487-32	132 5 2	46	..	..	..	15	..	..	..
Private . . . . .	1	"	65-00	200 0 0	1	..	..	..	..	..	..	..
MADRAS DISTRICT.												
Municipal . . . . .	16	"	281-90	510 7 8	16	..	..	..	16	..	..	32

**Categories—**

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

**TABLE IV.**

**SPECIAL HOSPITALS AND CLINICS.**

Province—**MADRAS.**

*Table showing particulars of work and medical staff for 1937.*

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	Number of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.			
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.	
NORTH ARCOT DISTRICT.												
Government Pentland Hospital, Vellore.	G	Leprosy	..	..	39.79	..	1	..	..	..	..	
Ranipet Hospital . . .	MN	"	..	..	73.23	..	1	..	1	..	2	
		X-Ray & Radium.	6	4	1.0	53 11 0	1	..	1	..	2	
SOUTH ARCOT DISTRICT.												
Government Headquarters Hospital, Cuddalore.	G	Veneral diseases.	..	20	18	25 2 5	1	..	..	..	..	
		Leprosy	108	..	17.75	..	1	..	..	..	..	
Government Hospital—												
Chidambaram . . .	G	"	22	..	16.16	..	1	..	..	..	..	
Villupuram . . .	G	"	16	..	12.82	..	1	..	..	..	..	
Thindivanam . . .	G	"	13	..	10.38	..	1	..	..	..	..	
Kallakurichi . . .	G	"	16	..	12.78	..	1	..	..	..	..	

[illegible]

## Province—MADRAS

TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	Number of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
SOUTH ARCOT DISTRICT— <i>contd.</i>											
Rural Dispensary—											
Pennadam . . . . .	DB	Leprosy	..	..	435	..	1	..	..	..	..
Mangalampet . . . . .	DB	"	..	..	591	..	1	..	..	..	..
Sehetiatope . . . . .	DB	"	..	..	380	..	1	..	..	..	..
J. Nedunjeri . . . . .	DB	"	..	..	332	..	1	..	..	..	..
Komaratchi . . . . .	DB	"	..	..	379	..	1	..	..	..	..
Kallachavadi . . . . .	DB	"	..	..	604	..	1	..	..	..	..
Thookanamakkam . . . . .	DB	"	..	..	971	..	1	..	..	..	..
Thirumananallur . . . . .	DB	"	..	..	651	..	1	..	..	..	..
Vikravandi . . . . .	DB	"	..	..	706	..	1	..	..	..	..
Rettanai . . . . .	DB	"	..	..	437	..	1	..	..	..	..



## Province—MADRAS.

TABLE IV—contd.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	Number of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
CHINGLEPUT DISTRICT—contd.											
L. W. Leper Settlement—contd.						Rs. A. P.					
Poonamalle . . . .	DB	Leprosy	..	..	38-68	..	1	..	..	..	..
Pulicat . . . .	DB	"	..	..	4-20	..	1	..	..	..	..
Sethiavedi . . . .	DB	"	..	..	10-24	..	1	..	..	..	..
Sembiam . . . .	DB	"	..	..	3-61	..	1	..	..	..	..
Sripesambudur . . . .	DB	"	..	..	29-58	..	1	..	..	..	..
Nagalapuram . . . .	DB	"	..	..	8-94	..	1	..	..	..	..
Qummidipundi . . . .	DB	"	..	..	2-42	..	1	..	..	..	..
Tirukalikundram . . . .	DB	"	..	..	28-00	..	1	..	..	..	..
Tiruvathiyoor . . . .	DB	"	..	..	5-82	..	1	..	..	..	..
Uttaramerur . . . .	DB	"	..	..	12-78	..	1	..	..	..	..
Vengal . . . .	DB	"	..	..	68-31	..	1	..	..	..	..





**Categories—**

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

**TABLE IV—*contd.***

**SPECIAL HOSPITALS AND CLINICS.**

**Province—MADRAS.**

*Table showing particulars of work and medical staff for 1937.*

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	Number of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
						Rs. A. P.					
<b>EAST GODAVARI DISTRICT.</b>											
Vishrantipuram Tuberculosis Sanatorium, Rajahmundry.	MN	Tuberculosis.	55	55	..	35 0 0	2	..	1	..	2
Leper Asylum, Ramachandrapuram.	MN	Leprosy	132	117	9	6 13 4	2	..	..	..	..
<b>WEST GODAVARI DISTRICT.</b>											
Balikesa Leper Hospital, Narasapur.	MN	"	120	91.15	83.29	9 13 2	1	1	..	..	1
<b>GUNTUR DISTRICT.</b>											
Headquarters Hospital, Guntur	G	Ophthalmic.	8	0.18	9.1	..	..	1	..	..	..
		Veneral diseases.	10	0.54	6.57	..	..	1	..	..	..
<b>Government Hospital, Tenali</b>	G	"	..	0.36	6.18	..	..	1	..	..	..



Province—MADRAS.

TABLE IV—contd.

SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

Categories—  
 G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	Number of beds if any.	Daily average number of in- patients.	Daily average number of out- patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipen- diary.	Honorary.	Matrons.	Sisters.	Nurses.
SOUTH KANARA DISTRICT.											
Government Wenlock Hospital, Mangalore.	G	Leprosy	..	..	23.04	Rs. A. P.	2	1	..	..	..
Government Hospital—											
Udipi . . . . .	G	"	..	..	13.55	..	..	1	..	..	1
Kasaragod . . . . .	G	"	..	..	2.41	..	1	..	..	..	..
Coondapur . . . . .	G	"	..	..	8.80	..	1	..	..	..	..
Puthur . . . . .	G	"	..	..	1.00	..	2	..	..	..	..
Local Fund Hospital—											
Bantval . . . . .	DB	"	..	..	2.61	..	1	..	..	..	..
Shirva . . . . .	P	"	..	..	10.40	..	1	..	..	..	..
Mulki . . . . .	DB	"	..	..	12.40	..	1	..	..	..	..
Rural Dispensary, Kaup . . . . .	P	"	..	..	15.64	..	1	..	..	..	..

Headquarters Hospital, Masulipatam.

	176	648	7
Ophthalmic.	176	648	7
Veneral diseases.	2788	263	..
Ear, Nose & Throat.	086	625	..
Dentistry	055	243	..
Tuber- culosis.	1301	074	5
Leprosy	..	016	..
Infectious diseases.	067	352	..
	20	17288	3
Ophthalmic.	3541	17288	3
Veneral	..	9575	1
Ear, Nose & Throat.	..	6555	..
Dentistry	..	1916	..
Tuber- culosis.	..	..	1
Leprosy	..	16700	part-time.
Infectious diseases.	25	..	..

There is accommodation for 2 civil lunatics for observation. No separate statistics.

**X-Ray is attached to the Hospital. No separate statistics available.**

**MADURA DISTRICT.**

Headquarters Hospital, Madras

**Categories—**

G = Government  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

**TABLE IV—contd.**

**SPECIAL HOSPITALS AND CLINICS.**

Province—MADRAS

*Table showing particulars of work and medical staff for 1937.*

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	Number of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
MADURA DISTRICT—contd.											
Government Hospital—											
Periakulam . . . .	G	Leprosy	..	..	28-49	..	1	..	..	..	..
Palni . . . . .	G	"	..	..	20-61	..	1	..	..	..	..
Usilampatti . . . .	G	"	..	..	72-91	..	1	..	..	..	..
Local Fund Hospital—											
Uthamapalam . . . .	DB	"	..	..	9-24	..	1	..	..	..	..
Thevaram Dispensary . .	DB	"	..	..	7-84	..	1	..	..	..	..
Audipatti Dispensary . .	DB	"	..	..	4-30	..	1	..	..	..	..
Tirumangalam Hospital . .	DB	"	..	..	14-18	..	1	..	..	..	..
Saptur Dispensary . . . .	DB	"	..	..	13-85	..	1	..	..	..	..
Sedapatti Clinic . . . .	DB	"	..	..	24-83	..		..	..	..	..
Nelakottai Clinic . . . .	DB	"	..	..	50-89	..	1	..	..	..	..



TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
MALABAR DISTRICT— <i>contd.</i>											
Government Women and Children Hospital, Calicut.	G	Venereal	7	12-21	9-25	Rs. A. P. 10 11 4	1	..	..	..	1
Government Hospital—											
Ponnairi . . . . .	G	Leprosy	..	..	15-85	..	1	..	..	..	..
Manjeri . . . . .	G	"	..	..	4-52	..	..	..	..	..	..
Cannanore . . . . .	G	"	..	..	9-83	..	1	..	..	..	..
Palghat . . . . .	G	"	..	..	28-07	..	1	..	..	..	..
Local Fund Dispensary—											
Kollengode . . . . .	DB	"	..	..	0-02	..	1	..	..	..	..
Valapad . . . . .	DB	"	..	..	10-54	..	1	..	..	..	..
Kannambara . . . . .	DB	"	..	..	5-63	..	1	..	..	..	..
Local Fund Hospital, Perinthalamanna.	DB	"	..	..	7-25	..	1	..	..	..	..

Local Fund Dispensary—Quilandy.	DB	"	"	22-32	..	1	..	..	..	..	..	..
Kuthuparamba.	DB	"	"	1-78	..	1	..	..	..	..	..	..
Local Fund Dispensary—												
Ottapalam	DB	"	"	8-20	..	1	..	..	..	..	..	..
Cheralacheri	DB	"	"	8-04	..	1	..	..	..	..	..	..
Thirthala	DB	"	"	18-03	..	1	..	..	..	..	..	..
Tirurangadi	DB	"	"	11-45	..	1	..	..	..	..	..	..
Alattur	DB	"	"	21-90	..	1	..	..	..	..	..	..
Tirur	DB	"	"	36-38	..	1	..	..	..	..	..	..
Thalipermba	DB	"	"	0-28	..	1	..	..	..	..	..	..
Badagara	DB	"	"	5-31	..	1	..	..	..	..	..	..
Leper Asylum, Charyur	MN	"	"	14-87	7 8 0	1	..	..	..	..	..	..
Headquarters Hospital, Calicut	G	Infectious diseases.	4	4-77	9 13 6	1	..	..	..	..	..	..
Infectious Diseases Hospital, Palghat.	MP	"	16	..	0 2 8	1	..	..	..	..	..	..
Municipal Hospital, Cannanore	MP	"	4	..	0 3 9	1	..	..	..	..	..	..
Infectious Hospital, Manjeri	DB	"	2	..	..	1	..	..	..	..	..	..
NILGIRIS DISTRICT.												
Headquarters Hospital, Ootacamund.	G	Venereal	10	12-00	..	..	1	..	..	..	..	..
		Ear, Nose & Throat.	..	3-66	..	..	1	..	..	..	..	..
Municipal Hospital, Ootacamund.	MP	Infectious diseases.	90	..	56 11 0	1	..	..	..	..	..	..



TABLE IV—contd.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 -MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
RAMNAD DISTRICT.							Rs. A. P.				
Dayapuram Lepet Asylum, Mana Madura.	MN	Leprosy	276	288.10	37.90	9 4 0	2	..	..	..	..
SALEM DISTRICT.											
Headquarters Hospital, Salem	G	Ophthalmic. Venereal Leprosy Infectious diseases.	..	11.40 8.11 ..	39.49 12.14 292.53 ..	40 0 9 40 0 9 ..	}	Please see Table I. these clinics.	No separate staff is sanctioned if these clinics.		
Municipal Hospital, Salem	MP		8	..	..	..				1	..
TANJORE DISTRICT.											
Mission Hospital, Tanjore	MN	Leprosy	291	290.76	78.02	..	2	..	1	4	..
TINNEVELLY DISTRICT.											
Headquarters Hospital, Palamcottah.	G	Ophthalmic.	..	5.70	26.87	34 11 0	..	1	..	..	..

“

TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or · clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in- patients.	Daily average number of out- patients.	Average cost per in patient per month.	Medical Staff.		Nursing Staff.		
							Stipen- diary.	Honorary.	Matrons.	Sisters.	Nurses.
TIRUNELVELY DISTRICT—contd.											
Municipal Dispensary, Pettail.	MP	Leprosy	..	..	250	..	1	..	..	..	..
Nazareth Dispensary	MN	"	..	..	1570	..	1	..	..	..	..
Municipal Hospital, Tuticorin	MP	Infectious diseases.	6	2	..	0 5 0	1	..	..	..	..
TACHIRIROPOLY DISTRICT.											
Headquarters Hospital, Trichi- nopoly.	G	Ophthal- mic.	..	2	1300	5 10 0	..	1	..	..	..
		Veneral	..	5	4000	5 10 0	..	1	..	..	1
		Ear, Nose & Throat.	..	..	1400	..	..	1	..	..	..
		Dentistry	..	..	3	..	..	1	..	..	1
		Tuber- culosis.	..	..	31	..	..	1	..	..	1
		Leprosy	..	..	12	..	..	..	..	..	..

[illegible]

Categories—

G = Government.  
MP = Municipal.  
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P = Private.  
MN = Missionary.

TABLE IV—*contd.*

Province—MADRAS.

SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.			
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.	
TRICHINOPOLY DISTRICT— <i>contd.</i>												
Rural Dispensary—												
Uppalaipuram	DB	Leprosy.	..	..	1	..	..	..	..	..	..	
Manachamallur	DB	"	..	..	2	..	..	..	..	..	..	
Arumbavur	DB	"	..	..	1	..	..	..	..	..	..	
VIZAGAPATAM DISTRICT.												
King George Hospital, Vizagapatam.	G	Ophthalmic.	68	60-90	127-23	54 4 2	4	..	1	5	24	
			25	26-37	54-10	54 4 2	2	1 (Part time)				
		Ear, Nose & Throat.	12	15-90	99-20	54 4 2	3	..				
			..	..	6-00	..	1	..				
			24	31-20	18-50	54 4 2	2	..				
Mental Hospital, Waltair	G	Tuberculosis.	24	18-00	40-10	54 4 2	2	1 (Part time)	..	..	..	
		Leprosy	124	172-27	..	0 8 9	1	..	..	..	11	



TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution* belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
MADRAS DISTRICT— <i>contd.</i>											
Government Rayapuram Hospital, Madras.	G	Ophthalmic.	30	30.64	139.66	Rs. A. P. 44 5 0	..	34	1	1	59
		Ear, Nose & Throat.	..	..	95.63	..					
		Venereal	29	36.58	66.84	44 5 0					
		Dentistry	..	..	45.01	..					
		Leprosy	..	..	45.33	..					
Government Tuberculosis Hospital, Madras. Royapettah Hospital, Madras	G	Tuberculosis.	80	97	..	53 12 6	3	2	..	..	6
		Ophthalmic.	8	0.71	115.24	53 15 8					
		Ear, Nose & Throat.	..	..	53.30	..					
		Leprosy	..	..	99.24	..					
		Mental	744	1,428.69	..	20. 1 8					
Mental Hospital, Madras	G	Infectious diseases.	104	57.00	..	15 0 0	12	2	1	2	12
Infectious Diseases Hospital, Tandairpet, Madras.	MP	"	57	24.00	..	15 0 0	2	2	1	1	8
Infectious Diseases Hospital, Krishnampet, Madras.	MP	"			..	15 0 0	1	..	..	..	4

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

## Province—BOMBAY.

TABLE I.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
BOMBAY CITY. (At Headquarters.)							Rs. A. P.									
St. George's Hospital	G	General	185	132.7	40.6	229 0 0	6	9	1	10	5	40	3	..	..	2
Jamsetji Jijibhoy Hospital	G	"	365	392.4	479.2	85 14 0	2	46	1	11	7	64	..	..	..	..
B. J. Hospital for Children	G	"	85	87.0	94.1	73 1 0	2	6	1	4	2	44	..	..	..	..
Bai Motilbai and Petit Hospitals.	G	Women	64	66.6	67.0	63 8 0	3	5	..	7	2	19	..	..	..	..
Cama and Alblees Hospitals.	G	"	150	161.9	285.0	79 15 0	9	6	1	8	10	16	..	24	..	..
Goonidas Tejpal Hospital	G	General	136	145.3	258.5	97 6 0	5	11	1	7	23	..	..	..	..	..
Northcote Police Hospital	G	Men	114	89.9	21.7	63 11 0	4	..	1	1	8	..	..	..	..	..
King Edward Memorial Hos-pital, Parel.	MP	General	370	397.6	857.8	109 1 0	38	31	1	18	24	72	..	..	..	..



Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
BOMBAY CITY—contd.																	
(At Headquarters)—contd.																	
Mohomed Haji Sabu Siddik Maternity Home, Bellasis Road.	MP	Women	37	30.6	50.7	54 15 0	2	..	..	..	5	..	..	..	..	..	..
Kamar Khanum Maternity Home, Victoria Cross Road.	MP	"	50	28.5	32.0	56 12 0	2	..	..	..	5	..	..	..	..	..	..
Sir Hurlisondas Nurroo-tum-das Hospital, Bombay.	P	General	150	163.0	..	100 3 0	7	10	1	6	27	10	2	..	..	..	..
Bhatia General Hospital, Tardeo Road.	P	"	75	37.0	..	127 8 0	4	18	1	..	12	..	..	..	..	..	..
Nowrojee Wadia Maternity Hospital, Parel.	P	Women	150	138.5	56	93 4 0	10	3	1	12	2	..	..	..	..	40	..
Bai Yamunabai L. Nair Charitable Hospital.	P	General	81	70.0	248.0	60 0 0	2	18	1	2	2	12	1	..	..	..	..

P	Romanjee Dinshaw Petit Parsee General Hospital.	208	99-0	7-0	110 0 0	6	16	1	2	2	20	2	..	..
P	Adams Wylie Memorial Hos- pital and Bai Motibai Wadia Out-door Dispen- sary.	69	47-0	75-0	35 7 0	1	2	1	..	..	3	..	..	..
P	Parsee Lying-in Hospital	50	30-0	..	126 0 0	1	5	1	..	..	5	3	..	..
P	Bombay Presidency Infant Welfare Society's Maternity Home, Delisle Road.	32	25-0	47-0	43 2 0	1	2	..	2	1	..	..	4	..
P	Bombay Presidency Infant Welfare Society's Maternity Home, Worli.	32	22-0	20-0	47 8 0	1	2	..	2	1	..	..	5	..
BOMBAY SUBURBAN DISTRICT.														
(At Headquarters.)														
(Others.)														
MP	Sir C. J. R. Dispensary and the K. B. Bhambha Hospital, Bandra.	30	24-0	93-1	68 0 0	1	1	..	1	2	..	..	9	..
THANA DISTRICT.														
(At Headquarters.)														
G	Vithal Sayana Civil Hospital, Thana.	50	40-2	89-5	55 8 0	3	..	..	1	1	4	..	..	..
(Others.)														
MN	Dahann Mission Hospital	30	27-0	65-0	23 0 0	1	..	..	1	2	5	2	3	1

Categories—

- G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE I—*contd.*

Province—BOMBA'

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
KOLABA DISTRICT.																
(At Headquarters.)																
Civil Hospital, Alibag .	G	General	20	13.7	26.8	Rs. A. P. 82 15 0	2	..	..	1	..	..	..	..	..	
Kolaba Maternity Hospital and Nursing Home, Alibag.	P	Women	23	8.0	41.0	112 0 0	1	2	1	..	..	4	1	..	..	
RAIAPUR DISTRICT.																
(At Headquarters.)																
Civil Hospital, Ratnagiri .	G	General	32	18.5	169.7	60 3 0	3	..	..	..	..	..	..	..	..	
(Others.)																
B. B. More Dispensary, Malvan.	MP	"	21	10.5	105.7	53 14 0	1	..	..	..	1	..	..	..	..	
St. Luke's Hospital, Vengurla	MN	"	105	85.0	62.0	30 0 0	4	..	1	1	2	14	2	2	7	

## KARWAR DISTRICT.

(At Headquarters.)

Civil Hospital, Karwar

G.	"	39	33-4	141-3	58 12 0	4	..	..	2	..	2	..	..
G	"	300	261-9	195-4	80 3 0	15	11	1	14	6	51	9	..
P	Women	40	40-6	96-1	37 8 0	2	1	1	..	2	..	15	..
MN	"	105	95-0	50-0	35 0 0	3	..	1	3	5	19	6	..
MN	General	100	72-0	26	29 12 0	1	..	1	..	2	6	..	3
MN	"	40	38-1	52	24 2 0	1	1	1	1	2	3	6	..

(Others.)

Dr. Sirdesai's Talegaon General Hospital, Talegaon (Dabhade).

P	"	44	22-0	28-0	0 14 0 (excluding diet).	1	10	..	..	1	1	..	4
---	---	----	------	------	-----------------------------	---	----	----	----	---	---	----	---

Ashwood Memorial Hospital, Dhond.

MN	"	20	10-5	55-0	73 8 0	2	..	1	..	2	..	..	1
----	---	----	------	------	--------	---	----	---	----	---	----	----	---

Ramabai Mukti Mission Hospital, Kedgaon.

MN	"	50	3-0	3-0	0 3 0 (excluding diet).	Not given	Not given	..	1	1	5	..	..
----	---	----	-----	-----	----------------------------	-----------	-----------	----	---	---	---	----	----

Category

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

TABLE I—*contd.*

Province—BOMBAY

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.			
AHMEDNAGAR DISTRICT.																		
(At Head-quarters)																		
Civil Hospital, Ahmednagar	G	General	54	48.9	120.9	Rs. A. P. 42 10 0	4	3	..	..	2	..	1	..	..	..	..	
Isaacsheb Deshpande Charitable Dispensary and Maternity Home, Ahmednagar.	P	"	20	17.0	21.0	60 0 0	1	1	..	..	1	..	1	..	..	..	..	
(Others.)																		
Vadala Mission Hospital, Vadala.	MN	"	24	14.0	40.0	19 8 0	2	..	..	..	2	..	..	..	..	..	..	
NASIK DISTRICT.																		
(At Head-quarters.)																		
Lord Harris Civil Hospital, Nasik.	G	"	82	70.9	130.3	48 12 0	4	3	1	2	..	6	1	1	..	..	..	

Canada Mission Hospital, Nasik.	MN	"	74	57.0	36.0	Not known	3	..	1	4	2	21	..	4	..
Cantonment General Hos- pital, Nasik.	P	"	27	4.5	153.8	Do.	3	..	..	..	1	..	..	..	..
WEST KHANDESH DISTRICT.															
(At Headquarters.)															
Civil Hospital, Dhulia .	G	"	58	43.8	71.9	41 12 0	4	3	..	..	3	..	..	..	..
EAST KHANDESH DISTRICT.															
(At Headquarters.)															
Civil Hospital, Jalgaon	G	"	57	42.8	94.2	72 3 0	4	3	1	1	2	..	3	..	..
SATARA DISTRICT.															
(At Headquarters.)															
Civil Hospital, Satara .	G	"	50	19.4	90.8	51 3 0	3	..	..	..	..	1	1	..	..
(Others.)															
Silver Jubilee Hospital, Wai	P	"	29	6.6	9	106 0 0	1	..	..	1	1	..	..	8	..
Willis F. Pierce Memorial Hospital, Wai.	MN	"	102	65.0	70.0	38 4 0	5	1	..	2	15	6	..	4	..
Mission Hospital, Miraj	MN	"	262	257.2	66.0	46 8 0	15	..	1	2	19	61	5	1	..

## Province—BOMBAY.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
SHOLAPUR DISTRICT.																		
(At Headquarters.)																		
Civil Hospital, Sholapur	G	General	70	64.6	184.3	Rs. A. P. 49 0 0	4	5	1	3	..	7	..	2	..	..	..	
N. F. Boyce Maternity Home, Sholapur.	P	Women	25	2.0	25.0	82 3 0	1	..	..	1	1	..	1	..	..	..	..	
Lady Dufferin Hospital, Sholapur.	P	"	25	26.0	107.0	30 0 0	1	..	..	..	1	2	3	..	..	..	..	
N. M. Wadia Charitable Hos-pital, Sholapur.	P	General	24	20.0	70.0	37 12 0	1	5	1	..	..	..	..	..	..	..	..	
(Others.)																		
Mission Hospital and Dispen-sary, Pandharpur.	MN	"	25	10.0	60.0	15 0 0	1	..	1	1	2	..	..	..	..	1	..	
BELGAUM DISTRICT.																		
(At Headquarters.)																		
Civil Hospital, Belgaum	G	"	128	94.4	64.4	43 8 0	4	5	1	..	5	13	..	6	..	..	..	

# **DHARWAR DISTRICT.**

*(At Head-quarters.)*

Civil Hospital, Dharwar

*(Others.)*

Maternity Hospital, Gadag

Municipal Hospital, Gadag

Chikmagalur Hospital, Hubli

Co-operative Hospital, Hubli

Indian Christian Mission Hospital, Haveri.

Basel Mission Hospital, Gadag, Betgeri Hospital, Gadag.

# **BIJAPUR DISTRICT.**

*(At Head-quarters.)*

Civil Hospital, Bijapur

# **SURAT DISTRICT.**

*(At Head-quarters.)*

Civil Hospital, Surat

R. D. Tarachand Parsi Hospital, Surat.

G	56	43.7	130.6	93 9 0	4	5	..	..	3	..	2	2	..
MP	20	15.8	89.6	44 5 0	1	..	..	..	1	..	3	..	..
MP	24	10.8	112.8	69 0 0	1	..	..	..	1	..	..	..	..
MP	41	53.7	156.3	37 4 0	2	..	..	..	2	..	1	..	..
P	24	16.0	128.0	51 14 0	1	5	..	..	..	..	4	..	..
MN	20	15.5	41.5	3 3 0	2	..	..	..	..	..	2	..	..
MN	100	85.0	163.0	36 0 0	3	..	..	3	3	14	1	..	4
G	64	60.6	170.3	39 10 0	5	1	..	..	2	..	3	..	..
G	52	45.8	134.1	51 9 0	3	4	1	..	1	..	2	..	..
P	25	27.0	108.0	136 8 0	2	..	1	1	..	..	2	3	..



Category.—

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE I—*contd.*

Province—BOMBAY.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.										
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.				
SURAT DISTRICT— <i>contd.</i> (At Headquarters— <i>contd.</i> )																			
Sheth Morabhai Vrijbhukhandas Hospital for Women and Children.	P	Women	35	31.9	110.4	Rs. A. P. 98 5 0	2	..	1	1	1	..	..	6	..	3	2		
Surat Mission Hospital	MN	General	32	25	50	110 4 0	1	..	1	1	3	1	1	..	..	..	..		
(Others.)																			
The Brethren Mission Hos-pital, Bulsar.	MN	"	23	17.0	80.0	100 0 0	2	..	1	..	2	..	..	..	..	..	..		
KAIRA DISTRICT. (At Headquarters.)																			
Civil Hospital, Kaira	G	General	32	15.8	100.9	77 15 0	2	..	..	..	1	..	..	..	..	..	..		



Categories—

G = Government.  
MP = Municipal.  
DR = District Board.  
P = Private.  
MN = Missionary.

TABLE I—*contd.*

Province—BOMBAY

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.					
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.
AHMEDABAD DISTRICT—contd.														
(At Head-quarters)—contd.														
Parvatibai Maternity Home, Darnapur.	P	Women	30	20.2	60.0	Rs. A. P. 50 0 0	1	1	..	4	..	..	..	..
Victoria Jubilee Hospital, Ahmedabad.	P	"	100	109.2	219.7	22 11 0	3	1	1	..	3	..	3.	20
Dr. Patel's Hospital and Maternity Home, Ahmedabad.	P	"	40	18.0	..	90 0 0	2	..	1	..	4	..	1	..
Labour Union Hospital, Outside Saraspur, Ahmedabad.	P	General	30	19.0	129.0	48 0 0	1	3	..	..	..	..	5	..
A. G. Charitable Maternity Hospital, Ahmedabad.	P	Women	40	27.0	40.0	45 0 0	..	2	1	1	7	..	7	..

## Province—BOMBAY.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
BOMBAY CITY.						Rs. A. P.										
Municipal . . . . .	3	Women	47	46.6	163.6	88 4 0	6	..	..	..	12	..	3	..	..	..
THANA AND BOMBAY SUBURBAN DISTRICT.																
Municipal . . . . .	4	General	33	12.5	696.1	299 6 0	4	..	..	..	..	..	4	..	..	..
District Board . . . . .	11	"	60	20.4	964.8	633 10 0	11	..	..	..	..	..	2	1	..	..
KOLABA DISTRICT.																
Municipal . . . . .	6	"	37	9.9	105.9	313 9 0	6	..	..	..	1	..	..	..	..	..
District Board . . . . .	2	"	10	1.1	29.6	675 0 0	2	..	..	..	..	..	..	..	..	..
Private . . . . .	2	Women	13	4.5	0.2	38 15 0	1	4	2	1	..	4	1	..	..	..
Missionary . . . . .	1	General	18	12.4	0.5	26 8 0	..	..	1	1	1	2	..	1	..	..

## Province—BOMBAY.

TABLE II—contd.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses			
RAVAGIRI DISTRICT.																		
Municipal . . . . .	2	General	14	2.7	149.2	Rs. A. P. 123 8 0	2	..	..	..	..	..	2	..	..	..	..	..
District Board . . . . .	3	"	23	4.2	180.6	101 12 0	3	..	..	..	..	..	2	..	..	..	..	..
Private . . . . .	1	"	6	2.4	54.3	179 8 0	1	..	..	..	..	..	..	..	..	..	..	..
KARWAR DISTRICT.																		
Municipal . . . . .	5	"	48	21.8	598.7	174 0 0	5	..	..	..	..	..	2	..	3	..	..	..
District Board . . . . .	7	"	35	6.7	394.9	275 8 0	7	..	..	..	..	..	..	..	2	..	..	..
POONA DISTRICT.																		
Government . . . . .	3	"	20	8.0	175.4	428 15 0	3	..	..	..	..	..	2	..	..	..	..	..
Municipal . . . . .	8	"	32	10.9	535.2	424 0 0	8	..	..	..	..	..	2	..	1	..	..	..
District Board . . . . .	4	"	14	1.3	220.5	272 8 0	4	..	..	..	..	..	..	..	..	..	..	..
Private . . . . .	1	Women	6	4.7	8.0	72 8 0	1	1	1	..	..	..	1	..	1	..	..	..



TABLE II—*concl.*

Province—BOMBAY.

## HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.										
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.				
SHOLAPUR DISTRICT.																			
Government . . . .	1	General	4	..	53.7	Rs. A. P. ..	1	..	..	..	..	..	..	..	..	..	..	..	..
Municipal . . . .	3	"	20	15.8	478.7	333 12 0	5	..	..	..	1	..	..	..	..	..	..	..	..
District Board . . . .	3	" Women and (6) General	21	2.1	210.5	324 5 0	3	..	..	..	..	..	..	..	..	..	..	..	..
Private . . . .	7		25	8.8	162.6	7 3 0	3	..	1	..	..	3	1	6	..	..	..	..	..
BELGAUM DISTRICT.																			
Municipal . . . .	4	General	28	19.1	234.3	131 12 0	4	..	..	..	..	..	..	..	..	..	..	..	..
District Board . . . .	3	"	20	9.4	172.6	127 2 0	3	..	..	..	..	..	..	..	..	..	..	..	..
DHARWAR DISTRICT.																			
Municipal . . . .	4	"	17	6.0	215.8	188 6 0	4	..	..	..	..	..	..	..	..	..	..	..	..
District Board . . . .	5	"	22	9.0	280.2	180 14 0	5	..	..	..	..	..	..	..	..	..	..	..	..
Private . . . .	1	Women	15	8.3	61.3	72 6 0	2	2	..	..	..	1	..	..	..	..	..	..	..





TABLE III.

Province—BOMBAY.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
BOMBAY CITY.									
Government	1	General	25.0	Rs. A. P. 375 0 0	1	..	..	..	..
Municipal	17	"	1,378.9	365 5 0	28	..	3	2	..
Private	1	"	40.0	300 0 0	1	..	..	..	..
THANA AND BOMBAY SUBURBAN DISTRICT.									
Municipal	1	"	38.9	799 4 0	1	..	..	..	..
District Board	1	"	52.0	149 10 0	1	..	..	..	..
KOLABA DISTRICT.									
District Board	2	"	25.7	231 9 0	2	..	..	..	..
Private	3	"	179.0	665 14 0	3	..	..	..	..
RATNAGIRI DISTRICT.									
District Board	1	"	53.8	326 4 0	1	..	..	..	..



TABLE III—*concd.*

Province—BOMBAY.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
SHOLAPUR DISTRICT.					Rs. A. P.					
Municipal . . . . .	7	General	1,073-4	247 6 0	7	1	..	1	..	
District Board . . . . .	2	"	76-0	112 0 0	2	..	..	2	..	
Private . . . . .	7	"	663-0	218 3 0	7	..	..	2	3	
BEILGAUM DISTRICT.										
District Board . . . . .	2	"	110-3	132 9 0	2	..	..	1	..	
DHARWAR DISTRICT.										
Municipal . . . . .	1	"	54-1	197 0 0	1	..	..	1	..	
District Board . . . . .	1	"	65-1	236 0 0	1	..	..	1	..	



TABLE IV.  
SPECIAL HOSPITALS AND CLINICS.*Table showing particulars of work and medical staff for 1937.*

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
BOMBAY CITY.											
Sir C. J. Ophthalmic Hospital	G	Ophthalmic.	73	72.8	216.2	Rs. A. P. 61 5 0	5	1	..	1	10
Anti-Venereal Dispensary, Bellasis Road.	MP	Venereal diseases.	..	..	317.0	..	2	..	..	..	1
Maratha Hospital, Byculla	MP	Tuberculosis.	80	76.0	68.0	72 4 0	3	1	1	..	6
Anti-Tuberculosis Dispensary—											
Princess Street	MP	"	..	..	36.8	..	1	..	..	1	..
Colaba	MP	"	..	..	4.8	..	1	..	..	..	1
Foras Road	MP	"	..	..	27.1	..	1	..	..	..	1
Lalbag, Parel	MP	"	..	..	26.9	..	1	..	..	..	1
Turner Sanatorium, Bombay	MP	"	40	33.7	..	72 9 0	1	1	1	1	3
Ackworth Leper Home, Matunga.	MP	Leprosy	364	288.2	10.0	17 0 0	2	..	..	..	8
Art ur Road Hospital	MP	Infectious diseases.	288	76.0	..	128 0 0	3	1	1	2	8

• Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.



TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

## Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.			
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.	
POONA DISTRICT.												
Talegaon General Hospital	P	Ophthalmic.	50	22.0	24.0	Rs. A. P. 0 15 0	1	..	..	..	1	
Hindu Tuberculosis Sanatorium, Karla.	P	Tuberculosis.	32	0.12	13.0	No food supplied. 12 0 0	1	..	..	..	..	
Lepor Hospital, Khondwa	MN	Leprosy	174	169.8	0.7	9 10 0	1	1	1	..	4	
Infectious Diseases Hospitals, Poona.	MP	Infectious diseases.	64	13.4	..	205 0 0	2	..	..	..	2	
Central Mental Hospital, Yeravda.	G	Mental	897	1,093.0	..	27 7 0	6	..	1	..	13	
AHMEDNAGAR DISTRICT.												
No Special Clinics or Hospitals.												
NASIK DISTRICT.												
Nasik Lepor Hospital, Nasik.	MN	Leprosy	112	111.2	16.8	8 10 0	1	..	..	..	2	

Lady Polworth Home, Nasik.	MN	"	22	21-9	..	7 9 0	1	..	..	1
WEST KHANDESH DISTRICT.										
No Special Clinics or Hospitals.										
EAST KHANDESH DISTRICT.										
Free Eye Hospital, Chalisgaon	P	Ophthalmic.	25	19-0	160-0	111 12 0	3	..	..	..
SATARA DISTRICT.										
Sir William Wanless Tuberculosis Sanatorium, Miraj.	MN	Tuberculosis.	154	146-0	..	48 0 0	5	..	1	10
Bel-Air Sanatorium, Panchgani	P	"	135	114-0	..	Not available	4	..	1	10
SHOLAPUR DISTRICT.										
Sakharam Nemchand Eye Hospital and Dispensary, Sholapur.	P	Ophthalmic.	20	10	60	Not available	1	5	..	3
Sholapur Leper Hospital	MN	Leprosy	75	65	..	10 0 0	1	..	..	..
BELGAUM DISTRICT.										
Belgaum Leper Hospital	MN	Leprosy	40	42-5	..	7 8 0	..	1	..	..
DHARWAR DISTRICT.										
Ophthalmic Clinic, I. W. A. S. Hospital, Hubli.	P	Ophthalmic.	..	..	20	..	..	1	..	..
Mental Hospital, Dharwar	G	Mental	171	205-5	..	13 5 0	3	..	..	..



Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

# TABLE IV—*concd.*

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
BHARUCH DISTRICT.							Rs. A. P.				
District Leper Hospital, Bijapur.	P	Leprosy	30	30	2.7	5 0 0	..	1	..	..	1
Kamunabai Leper Dispensary, Bijapur.	P	"	..	..	11.1	..	..	1	..	..	..
SURAT DISTRICT.											
Free Eye Hospital, Bulsar	P	Ophthalmic.	30	25.5	63.6	25 0 0	1	..	..	..	..
Parvatibai Leper Hospital, Surat.	P	Leprosy	172	163.6	4.0	13 0 0	1	..	..	..	..
Lady Willington Ashakta Ashram Dispensary.	P	Infectious diseases.	..	..	169.2	..	..	1	..	..	..
KATRA DISTRICT.											
The Eye Hospital, Anand	P	Ophthalmic.	21	8.2	23.5	21 9 0	2	..	..	1	..

BROACH AND PANCH MAHALS  
DISTRICTS.

No Special Clinics or Hospitals.

## AHMEDABAD DISTRICT.

Parvatibai Eye Hospital, Ahmedabad.	P	Ophthal- mic.	50	37-0	150-0	24 11 0	2	1	..	..	..
Charitable Eye Hospital, Char Rasta, Ahmedabad.	P	"	20	15-0	50-0	22 2 0	1	3	..	..	1
Eye Hospital Ellis Bridge, Ahmedabad.	MN	"	20	11-0	10-0	27 3 0	2	..	..	..	1
Dr. Anklesaria's Eye Hospital, Ahmedabad.	P	"	40	15-0	..	11 4 0	3	..	..	..	..
Talwalkar Sanatorium, Ahmedabad.	P	Tuber- culosis.	12	3	..	30 0 0	2	..	..	..	..
Kagrath Leper Hospital, Ahmedabad.	G	Leprosy	95	98-2	0-1	10 8 0	1	..	..	..	..
Infectious Diseases Hospital, Kankaria.	MP	Infectious diseases.	30	0-4	..	9 8 0	No permanent staff. Medical Officers are deputed when there are cases in the hospital.				
Parvatibai Home for incurables	P	"	22		Not available		..	1	..	..	..
Mental Hospital, Ahmedabad	G	Mental	167	232-7	..	14 1 0	3	..	..	..	1

Note.—Only the independent Special Hospitals and Clinics have been included in this Table. Clinics in General Hospitals or Dispensaries have not been taken into account.

## Categories—

G = Government,  
 MP = Municipal,  
 DB = District Board  
 P = Private,  
 MN = Missionary.

TABLE I.

Province—BENGAL.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
Rs. A. P.															
CALCUTTA DISTRICT. (At Headquarters.)															
Medical College Hospitals	G	General	726	765-63	1,419-27	127 0 0	53	91	2	16	28	138	22	..	..
Carmichael Hospital for Tropical Diseases.	G	"	106	120-91	228-19	14 0 0	5	..	..	..	20	..	..	..	..
Presidency General Hospital	G	"	235	183-75	25-74	267 0 0	18	..	1	4	94	..	..	..	..
Campbell Hospital	G	"	717	479-18	259-20	60 0 0	39	44	2	..	51	..	1	..	..
Sambhunath Pandit Hospital	G	"	106	120-91	288-19	60 0 0	6	7	1	2	5	20	..	..	..
Mayo Hospital	P	"	114	91-33	226-80	103 0 0	7	7	..	..	12	..	..	..	..
Calcutta Medical School Hospital.	P	"	169	154-22	274-66	48 0 0	15	21	..	..	9	..	..	..	..
Chittaranjan Hospital	P	"	151	82-10	286-66	64 0 0	17	33	..	..	35	..	..	..	12
S. V. S. Marwari Hospital	P	"	220	159-18	722-91	40 0 0	5	7	..	..	..	..	4	2	19

Carmichael Medical College Hospital, Belgachia.	P	448	338-38	480-07	70	0	0	11	44	1	..	86	..	..	..	..
Lady Dufferin Victoria Hospital.	P	136	108-43	71-24	67	0	0	6	..	1	8	2	14	..	..	..
Police Hospital, Calcutta.	G	260	99-8	4-30	..	..	..	10	..	1	..	1	..	..	..	..
Rai Bhagabandas Bagala Bahadur Marwari Hindu Hospital.	P	50	..	..	..	..	..	6	..	..	..	..	..	..	..	..
Chetia Maternity Home	MP	40	33-00	20-50	46	0	0	1	..	..	..	3	..	..	..	..
Baldeodas Maternity Home.	MP	35	44-80	72-40	56	0	0	1	..	..	..	5	..	..	..	..
Kidderpore Maternity Home	MP	24	33-14	64-30	49	0	0	1	..	..	..	4	..	..	..	..
Manikola Maternity Home.	MP	20	2-84	NVL	435	0	0	1	..	..	..	3	..	..	..	..
BURDWAN DISTRICT.																
(At Headquarters.)																
Fraser Hospital.	P	150	111-96	173-02	23	0	0	12	3	..	..	..	2	..	..	3
Police Hospital.	G	44	..	..	..	..	..	1	..	..	..	..	..	..	..	..
(Others.)																
L. M. Hospital, Asansol.	MP	26	20-19	36-06	39	0	0	1	..	..	..	2	..	..	..	..
U. F. C. Mission Hospital, Kalna.	MN	76	55-41	65-28	32	0	0	3	..	..	2	3	8	..	..	..
BIRJAM DISTRICT.																
(At Headquarters.)																
Sadar Hospital, Suri.	MP	34	11-36	61-11	43	0	0	1	3	..	..	..	..	..	..	2
Police Hospital, Suri.	G	20	6-41	5-02	14	0	0	1	..	..	..	..	..	..	..	..
(Others.)																

NVL.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and, medical and nursing staffs for 1937.

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
Rs. A. P.																
BANKURA DISTRICT. (At Headquarters.)	MP	General	36	81.10	63.09	48 0 0	3	..	..	..	..	..	..	..	..	1
	P	"	104	69.99	57.48	25 0 0	13	1	..	..	1	3	1	..	..	..
	G	Men	20	10.42	4.46	34 0 0	1	..	..	..	..	..	..	..	..	1
	(Others.)										1	..	..	..	..	..
Sarenga Wesleyan Mission Hospital.	MN	General	50	46.07	33.93	23 0 0	6	..	..	1	..	6	..	..	..	..
MIDNAPORE DISTRICT. (At Headquarters.)																
K. E. M. Sadar Hospital, Midnapore.	MP	General	81	47.93	240.81	43 0 0	2	4	..	..	..	1	..	..	..	..
Police Hospital, Midnapore	G	Men	38	..	..	..	1	..	..	..	..	..	..	..	..	..



TABLE I--*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories--

- G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
24-PARGANAS DISTRICT — <i>contd.</i>						Rs. A. P.									
(Others.)															
Eastern Frontier Rifles Hospital.	G	General	23	..	..	..	1	..	..	..	..	..	..	..	..
Basirhat Hospital	MP	"	20	9-18	71-57	39 0 0	1	..	..	..	..	1	..	..	..
Budge Budge Hospital	MP	"	28	24-41	175-65	39 0 0	1	..	..	..	..	..	1	..	..
Diamond Harbour Hospital.	DB	"	22	8-91	50-47	41 0 0	1	..	..	..	1	..	..	..	..
Cossipur Hospital	P	"	49	67-84	279-80	44 0 0	5	3	1	..	1	5	..	..	..
Barrackpur B. N. Bose's Hospital.	P	"	26	17-58	97-60	33 0 0	1	..	..	..	..	..	..	..	..
Kamarhati Hospital	P	"	107	..	..	..	4	..	..	..	10	..	..	..	..
NADIA DISTRICT.															
(At Headquarters.)															
Sadar Hospital, Krishnagar.	MP	General	40	29-64	127-95	36 0 0	1	4	..	..	1	..	..	1	3





Categories—

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE I—*contd.*

Province—BENGAL.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.					
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.
KHULNA DISTRICT—contd.														
(Others.)														
Bagerhat Hospital	DB	General	22	15.64	83.40	Rs. A. P. 27 0 0	1	1	..	..	1	..	..	..
DACCA DISTRICT.														
(At Headquarters.)														
Miford Hospital, Dacca	G	General	261	301.79	330.47	33 0 0	11	22	1	1	6	20	..	8
Police Hospital, Dacca	G	Men	42	..	..	..	1	..	..	..	..	..	..	..
(Others.)														
Narayanganj Victoria Hos-pital.	MP	General	39	40.22	99.25	27 0 0	3	..	..	..	..	..	..	..
Manikganj Hospital	P	"	22	3.90	48.79	114 0 0	1	..	..	..	1	..	..	..
Eastern Frontier Rifles Hos-pital.	G	"	58	..	..	..	1	..	..	..	..	..	..	..

## MYMENSINGH DISTRICT.

## (At Headquarters.)

S. K. Hospital, Mymensingh .	MP	General	124	105-71	151-45	33	0	0	7	10	1	..	4	7	..	..	..
Police Hospital, Mymensingh .	G	Men	42	..	..	..	..	..	1	..	..	..	..	..	..	..	..
(Others.)																	
Tangail Hospital .	MP	General	22	9-60	99-91	48	0	0	1	..	..	..	..	..	1	..	..
Netrokona Hospital .	P	"	21	11-82	61-27	22	0	0	1	..	..	..	..	..	1	..	..
Nagarpur Hospital .	P	"	50	35-69	201-38	24	0	0	3	..	..	..	..	..	2	..	..

## FARIDPUR DISTRICT.

## (At Headquarters.)

Faridpur Sadar Hospital .	MP	General	28	25-67	125-77	25	0	0	4	1	..	..	..	..	1	..	..
Police Hospital, Faridpur .	G	Men	20	12-68	7-93	..	..	..	2	..	..	..	..	..	..	..	..
(Others.)																	
Madaripur Hospital .	MP	General	20	10-29	58-71	31	0	0	3	..	..	..	..	..	1	..	..

## BAKARGANJ DISTRICT.

## (At Headquarters.)

Sadar Hospital, Barisal .	MP	General	106	98-02	210-76	46	0	0	2	9	1	3	2	10	1	2	..
Police Hospital, Barisal .	G	Men	40	..	..	..	..	..	1	..	..	..	..	..	..	..	..

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

TABLE I—*contd.*

Province—BENGAL

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.										
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.				
BAKARGANG DISTRICT— <i>contd.</i>																			
(Others.)																			
Pirojpur Hospital	MP	General	20	9.00	151.27	Rs. A. P. 57 0 0	3	.	.	.	.	.	1	.	.	.	.		
Patuakhali Hospital	MP	"	23	7.77	54.14	31 0 0	3	.	.	.	.	.	1	.	.	.	.		
CHITTAGONG DISTRICT.																			
(At Headquarters.)																			
General Hospital, Chittagong.	P	General	116	110.50	99.12	39 0 9	5	12	1	4	4	9	.	.	.	.	3		
Police Hospital, Chittagong	G	Men	50	27.06	13.52	23 0 0	1	.	.	.	.	.	.	.	.	.	.		
(Others.)																			
TIPPERA DISTRICT.																			
(At Headquarters.)																			
Sadar Hospital, Comilla	MP	General	28	28.98	225.06	28 0 0	2	3	.	.	.	.	.	.	.	.	1		

NH



## Categories

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

TABLE I—*contd.*

Province—BENGAL

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
DINAJPUR DISTRICT.																		
(At Headquarters.)																		
Dinajpur Sadar Hospital	MP	General	62	40-78	98-88	Rs. A. P.	3	2	..	..	2	1	..	..	..	..	..	..
Police Hospital, Dinajpur	G	Men	22	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
(Others.)																		
JALPAIGURI DISTRICT.																		
(At Headquarters.)																		
General Hospital, Jalpaiguri	P	General	106	94-49	219-46	102 0 0	13	8	1	..	6	8	..	..	..	..	..	..
Police Hospital, Jalpaiguri	G	Men	20	9-41	5-8	45 0 0	2	..	..	..	..	..	..	..	..	..	..	..
(Others.)																		

Nil

Nil

## RANGPUR DISTRICT.

(At Headquarters.)

Rangpur Sadar Hospital	MP	General	59	39-51	90-73	31	0	0	6	4	1	..	..	..	..	..	..	..	..
Police Hospital, Rangpur	G	Men	31	13-79	8-35	32	0	0	2	..	..	..	..	..	..	..	..	..	..

(Others.)

Nil

## BOGRA DISTRICT.

(At Headquarters.)

Sadar Hospital, Bogra	MP	General	22	14-31	31-24	30	0	0	3	2	..	..	..	..	..	..	..	..	..
Police Hospital, Bogra	G	Men	20	8-03	4-39	..	..	..	2	..	..	..	..	..	..	..	..	..	..

(Others.)

Nil

## PABNA DISTRICT.

(At Headquarters.)

Pabna Sadar Hospital	MP	General	30	27-95	104-35	43	0	0	2	1	..	..	..	..	..	..	..	..	..
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(Others.)

Seraiganj Victoria Hospital	MP	"	34	18-10	70-29	43	0	0	2	..	..	..	..	..	..	..	..	..	..
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## MALDAH DISTRICT.

(At Headquarters.)

English Bazar Sadar Hospital, Maldah.	MP	General	42	24-21	65-70	46	0	0	2	1	..	..	..	..	..	..	..	..	..
Police Hospital, Maldah	G	Men	27	7-76	4-25	16	0	0	1	..	..	..	..	..	..	..	..	..	..

(Others.)

Nil



## Province—BENGAL.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
						Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
CALCUTTA DISTRICT.														
Municipal . . . .	1	General	2-63	116-13	Rs. A. P. 242 0 0	1	.	.	.	.	.	.	.	.
BURDWAN DISTRICT.														
Municipal . . . .	2	General	2-53	96-45	516 0 0	2	.	.	.	.	.	.	.	.
District Board . . . .	1	"	0-10	43-41	1,739 0 0	1	.	.	.	.	.	.	.	.
Private (Non-aided) . . . .	2	"	..	..	..	2	.	.	.	.	.	.	.	.
Missionary . . . .	1	Women	..	..	..	1	.	.	.	1	.	.	.	.
BIRBHUM DISTRICT.														
District Board . . . .	3	General	2-12	206-13	283 0 0	3	2	.	.	.	.	2	.	.
Private (Aided) . . . .	1	"	3-45	134-29	141 0 0	1	.	.	.	.	.	.	.	.
Private (Aided) . . . .	1	Women	4-44	20-10	56 0 0	1	.	.	.	.	.	.	.	.



Province—BENGAL.

TABLE II—*contd.*

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	Fdc men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
<b>BANKURA DISTRICT.</b>															
Municipal . . . . .	1	General	10	5-60	100-54	41 0 0	3	.	.	.	.	.	1	.	1
Private (Aided) . . . . .	1	Women	4	1-07	18-25	124 0 0	1	.	.	.	.	.	.	.	.
<b>MIDNAPORE DISTRICT.</b>															
Municipal . . . . .	2	General	27	14-36	150-22	39 0 0	2	.	.	.	.	.	2	.	.
District Board . . . . .	3	"	18	3-36	181-75	1,023 0 0	3	.	.	.	.	.	.	.	.
Private (Aided) . . . . .	1	"	8	2-78	40-49	77 0 0	1	.	.	.	.	.	1	.	.
Private (Non-aided) . . . . .	2	"	18	0-32	300-77	2,341 0 0	3	.	.	.	.	.	.	.	.
<b>HOOGLY DISTRICT.</b>															
Municipal . . . . .	1	General	10	4-54	76-41	88 0 0	1	.	.	.	.	.	.	.	.



TABLE II—*contd.*

## HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
KHULNA DISTRICT.																		
Municipal . . . .	1	General	13	7.07	80.36	Rs. A. P. 86 0 0	1	1	.	.	.	.	.	.	.	.	.	.
District Board . . . .	2	"	16	14.32	357.75	72 0 0	2	..	.	.	.	.	.	.	.	.	.	.
DACCA DISTRICT.																		
Private (Aided) . . . .	1	General	15	8.98	48.37	29 0 0	1	..	.	.	.	.	.	1	.	.	.	.
Private (Non-aided) . . . .	3	"	14	0.2	230.98	3,373 0 0	3	..	.	.	.	.	.	.	.	.	.	.
MYMENSINGH DISTRICT.																		
Municipal . . . .	4	General	49	33.24	268.23	85 0 0	4	..	.	.	.	.	.	2	.	.	.	.
District Board . . . .	2	"	10	1.71	150.61	214 0 0	2	..	.	.	.	.	.	.	.	.	.	.

Private (Non-aided)	1	"	15	13-86	168-05	41 0 0	2	..	..	..	..	..	1	..	..
<b>FARDUP DISTRICT.</b>															
Municipal	1	General	17	6-97	94-03	49 0 0	3	..	..	..	..	..	1	..	..
District Board	1	"	18	4-34	37-02	66 0 0	3	..	..	..	..	..	1	..	..
Private (Aided)	1	"	16	6-85	50-56	41 0 0	2	..	..	..	..	..	..	..	..
<b>BAKARGANJ DISTRICT.</b>															
District Board	1	General	10	7-98	64-12	58 0 0	1	..	..	..	..	..	1	..	..
<b>CHITTAGONG DISTRICT.</b>															
Municipal	1	General	15	5-71	31-37	68 0 0	1	..	..	..	..	..	..	..	..
District Board	1	"	12	0-005	67-06	..	1	..	..	..	..	..	..	..	..
<b>TIPPERAH DISTRICT.</b>															
Government	1	Men	16	..	..	..	1	..	..	..	..	..	..	..	..
Private (Aided)	1	Women	4	1-90	63-59	111 0 0	1	..	..	..	..	..	..	..	..
<b>NOAKHALI DISTRICT.</b>															
Government	1	Men	12	6-01	4-14	49 0 0	1	..	..	..	..	..	..	..	..
District Board	2	General	16	12-80	161-17	246 0 0	2	..	..	..	..	..	2	..	..

TABLE II—concl'd.

Province—BENGAL.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of hospitals and dispensaries.	For men, women or general.	Num-ber of in- beds.	Daily average number of in- patients.	Daily average number of out- patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
CHITTAGONG HILL TRACT DISTRICT.															
Government (Class I) . . .	9	General	47	10-95	220-95	777 0 0	9	..	..	..	..	..	1	..	..
Government (Class II) . . .	1	Men	8	..	..	..	1	..	..	..	..	..	..	..	..
DINAJPUR DISTRICT.															
District Board . . .	2	General	26	9-41	168-13	31 0 0	2	..	..	..	..	..	2	..	..
JALPAIGURI DISTRICT.															
Private (Aided) . . .	3	"	16	3-56	102-15	494 0 0	7	..	..	..	..	..	..	..	..

## RANGPUR DISTRICT.

District Board . . .	3	General	32	12-54	165-59	92 0 0	7	..	..	..	..	..	2	..	..
BOGRA DISTRICT.															
Municipal . . .	1	General	4	0-44	61-27	343 0 0	2	..	..	..	..	..	1	..	..
PAKSA DISTRICT.															
Government . . .	1	Men	14	..	..	..	1	..	..	..	..	..	..	..	..
MAIDA DISTRICT.															
Municipal . . .	2	General	8	0-79	83-49	618 0 0	1	..	..	..	..	..	1	..	..
DARJEELING DISTRICT.															
Government (Class I)	1	General	11	4-14	24-70	49 0 0	1	..	..	..	..	..	..	..	..
Government (Class II)	1	Men	10	..	..	..	1	..	..	..	..	..	..	..	..
District Board . . .	1	General	14	13-08	37-60	44 0 0	1	..	..	..	..	..	..	..	..
Private (Aided) . . .	1	"	13	4-78	..	..	1	..	..	..	..	..	..	..	..

TABLE III.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
CALCUTTA DISTRICT.					Rs. A. P.					
Government	1	Men	20.70	380 0 0	1	..	..	..	..	..
Municipal	12	General	1,780.08	569 0 0	12	..	..	..	..	..
Private (Aided)	2	"	438.58	..	3	..	..	..	..	..
Private (Non-aided)	2	"	..	..	2	..	..	..	..	..
BURDWAN DISTRICT.										
Municipal	1	General	15.98	57 0 0	1	..	..	..	..	..
District Board	21	"	1,348.04	172 0 0	21	..	..	..	..	..
District Board. (Village)	1	"	42.79	508 0 0	1	..	..	..	..	..
Private (Non-aided)	9	"	..	..	9	..	..	..	..	..
Union Board	28	"	599.04	108 0 0	28	..	..	..	..	..
BIRBHUM DISTRICT.										
District Board	8	General	499.13	116 0 0	8	..	..	..	..	..

District Board. (Village)	6	215-37	93 0 0	5	..	..	..	..	..
Private (Aided)	1	25-05	114 0 0	1	..	..	..	..	..
Private (Non-aided)	2	..	..	2	..	..	..	..	..
Union Board	17	499-28	71 0 0	.17	..	..	..	..	..
BANKURA DISTRICT.									
Municipal	1	33-78	99 0 0	1	..	..	..	..	..
District Board	8	486-86	159 0 0	8	..	..	..	..	..
Private (Aided)	1	52-74	195 0 0	1	..	..	..	..	..
Private (Non-aided)	2	..	..	2	..	..	..	..	..
Union Board	5	141-67	167 0 0	5	..	..	..	..	..
MIDNAPORE DISTRICT.									
Government	1	..	..	1	..	..	..	..	..
Municipal	4	309-38	145 0 0	4	..	..	..	..	..
District Board	29	1,940-83	211 0 0	29	..	..	1	..	..
Private (Aided)	2	52-90	81 0 0	2	..	..	..	..	..
Private (Non-aided)	7	..	..	7	..	..	..	..	..
HOOGHLY DISTRICT.									
Municipal	4	136-64	160 0 0	4	..	..	..	..	..
District Board	13	932-34	196 0 0	14	..	..	1	..	..
District Board. (Village)	1	70-87	151 0 0	1	..	..	..	..	..



TABLE III—*contd.*  
 PROVINCE—BENGAL.  
 HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

\*Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
HOOGHLY DISTRICT— <i>contd.</i>									
Private (Aided) . . . . .	2	General	79.33	Rs. A. P. 144 0 0	2	..	..	..	..
Private (Non-aided) . . . . .	24	"	..	..	24	..	..	1	..
Union Board . . . . .	49	"	1,007.27	117 0 0	49	..	..	..	..
HOWRAH DISTRICT.									
Government . . . . .	1	General	..	..	1	..	..	..	..
Municipal . . . . .	4	"	184.08	198 0 0	4	..	..	..	..
District Board . . . . .	11	"	627.70	205 0 0	11	..	1	..	..
Private (Aided) . . . . .	6	"	433.22	147 0 0	6	..	..	..	..
Private (Non-aided) . . . . .	2	"	..	..	3	..	..	..	..
Union Board . . . . .	11	"	297.33	81 0 0	11	..	..	..	..
24-PARGANAS DISTRICT.									
Municipal . . . . .	15	General	994.87	215 0 0	15	..	..	..	..
District Board . . . . .	55	"	2,634.03	153 0 0	55	..	..	..	..

Private (Aided)	1	43-22	140 0 0	1	..	..	..
Private (Non-aided)	4	..	..	4	..	..	..
NADIA DISTRICT.							
Municipal	3	98-19	107 0 0	3	..	..	..
District Board	30	1,673-10	164 0 0	31	..	..	..
Private (Aided)	4	122-97	99 0 0	4	..	..	..
Private (Non-aided)	6	..	..	6	..	..	..
Missionary	2	..	..	2	..	..	..
Missionary	1	..	..	1	..	3	..
Union Board	16	639-35	92 0 0	16	..	..	..

MURSHIDABAD DISTRICT.

Municipal	1	47-05	..	1	..	..	..
District Board	10	644-85	175 0 0	10	..	..	..
District Board. (Village)	1	46-07	70 0 0	1	..	..	..
Private (Non-aided)	8	..	..	8	..	..	..
Missionary	1	..	..	1	..	..	..
Union Board	17	709-33	180 0 0	17	..	..	..

JESSORE DISTRICT.

Municipal	1	46-51	130 0 0	1	..	..	..
District Board	11	985-67	138 0 0	12	..	..	..

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

• Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
JESSORE DISTRICT— <i>contd.</i>									
District Board. (Village)	12	General	526-57	Rs. A. P. 113 0 0	12	..	..	..	..
Private (Aided)	6	"	208-07	102 0 0	6	..	..	..	..
Private (Non-aided)	4	"	..	..	4	..	..	..	..
Union Board	10	"	352-06	90 0 0	10	..	..	..	..
KHULNA DISTRICT.									
District Board	27	General	1,725-38	233 0 0	27	..	..	..	..
District Board. (Village)	6	"	467-28	177 0 0	6	..	..	..	..
Private (Aided)	1	"	76-08	219 0 0	1	..	..	..	..
Private (Non-aided)	2	"	..	..	2	..	..	..	..
Union Board	4	"	148-12	170 0 0	4	..	..	..	..
DACCRA DISTRICT.									
Government	1	General	..	..	2	..	..	..	..

Municipal	.	.	.	.	2	159-03	194 0 0	2	..	..	1	..
District Board	.	.	.	.	27	2,309-08	171 0 0	27	..	..	..	..
Private (Aided)	.	.	.	.	5	212-08	86 0 0	5	..	..	1	..
Private (Non-aided)	.	.	.	.	8	..	..	8	..	..	..	..
Union Board	.	.	.	.	11	401-78	112 0 0	4	..	..	..	..
MYMENSINGH DISTRICT.												
District Board	.	.	.	.	55	General	2,508-78	182 0 0	55	..	..	..
Private (Aided)	.	.	.	.	2	"	33-37	54 0 0	2	..	..	..
Private (Non-aided)	.	.	.	.	16	"	..	16	..	..	..	..
Union Board	.	.	.	.	46	"	1,246-07	57 0 0	46	..	..	..
FARIDPUR DISTRICT.												
District Board	.	.	.	.	21	General	544-70	122 0 0	21	..	..	..
District Board. (Village)	.	.	.	.	21	"	513-65	77 0 0	21	..	..	..
Private (Aided)	.	.	.	.	12	"	343-51	77 0 0	12	..	..	..
Private (Non-aided)	.	.	.	.	1	"	..	..	1	..	..	..
Union Board	.	.	.	.	7	"	136-69	90 0 0	7	..	..	..
BAKARGANJ DISTRICT.												
Municipal	.	.	.	.	2	General	168-34	183 0 0	2	..	..	..
District Board	.	.	.	.	32	"	2,407-78	194 0 0	32	..	1	..

TABLE III—*contd.*

Province—BENGAL.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

• Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
BAKARGANJ DISTRICT— <i>contd.</i>					Rs. A. P.					
Private (Aided)	3	General	139.21	177 0 0	3	..	..	..	..	..
Missionary	1	"	78.95	265 0 0	1	..	..	..	..	..
Union Board	5	"	75.47	118 0 0	5	..	..	..	..	..
CHITTAGONG DISTRICT.										
District Board	12	General	741.43	145 0 0	13	..	..	..	..	..
District Board. (Village)	10	"	565.21	157 0 0	10	..	..	..	..	..
Union Board	7	"	240.87	75 0 0	7	..	..	..	..	..
TIPPERAH DISTRICT.										
Municipal	1	General	119.98	332 0 0	1	..	..	..	..	..
District Board	24	"	1,430.83	182 0 0	24	..	..	..	..	..
District Board. (Village)	1	"	36.12	211 0 0	1	..	..	..	..	..
Private (Non-aided)	8	"	..	..	8	..	..	..	..	..



TABLE III—*contd.*

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

- Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, or women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
JALPAIGURI DISTRICT.					Rs. A. P.					
District Board . . . . .	8	General	457.49	233 0 0	8	..	..	..	..	..
Private (Non-aided) . . . . .	2	"	..	..	2	..	..	..	..	..
Union Board . . . . .	10	"	243.10	155 0 0	10	..	..	..	..	..
RANGPUR DISTRICT.										
Municipal . . . . .	1	General	94.44	316 0 0	1	..	..	..	..	..
District Board . . . . .	28	"	1,627.59	240 0 0	28	..	..	..	..	..
Private (Aided) . . . . .	4	"	172.69	120 0 0	4	..	..	..	..	..
Private (Non-aided) . . . . .	5	"	..	..	5	..	..	1	..	..
Union Board . . . . .	25	"	838.59	86 0 0	25	..	..	..	..	..
BOGRA DISTRICT.										
District Board . . . . .	14	General	1,089.75	202 0 0	14	..	..	..	..	..
District Board. (Village) . . . . .	4	"	298.38	125 0 0	4	..	..	..	..	..

Private (Aided)	2	55	80-52	144 0 0	2	..	..	..	..	..
Private (Non-aided)	1	"	..	..	1	..	..	..	..	..
Union Board	10	"	376-57	98 0 0	10	..	..	..	..	..
PARNA DISTRICT.										
District Board	13	General	723-00	174 0 0	13	..	..	..	1	..
Private (Aided)	8	"	278-38	112 0 0	8	..	..	..	..	..
Private (Non-aided)	1	"	..	..	1	..	..	..	..	..
Union Board	15	"	651-86	218 0 0	15	..	..	..	..	..
MALDAH DISTRICT.										
Municipal	1	General	32-66	92 0 0	1	..	..	..	..	..
District Board	9	"	288-06	197 0 0	9	..	..	..	..	..
District Board. (Village)	2	"	61-81	98 0 0	2	..	..	..	..	..
Private (Aided)	3	"	201-07	128 0 0	3	..	..	..	..	..
Private (Non-aided)	5	"	..	..	5	..	..	..	..	..
Union Board	8	"	251-83	105 0 0	8	..	..	..	..	..
DARJEELING DISTRICT.										
Government (Class I)	3	General	118-00	227 0 0	3	..	..	..	..	..
Government (Class II)	3	"	..	..	3	..	..	..	..	..
Municipal	1	"	24-85	110 0 0	1	..	..	..	..	..
Private (Non-aided)	2	"	..	..	2	..	..	..	..	..
Missionary	2	"	..	..	2	..	..	..	..	..



## Province—BENGAL.

TABLE IV.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matron.	Sisters.	Nurses.
CALCUTTA DISTRICT.											
Travelling Eye Dispensary	P	Ophthalmic.	Information not available.				Rs. A. P.				
Voluntary Venereal Hospital, Alipore.	G	Venereal diseases.	82	59.36	..	35 0 0	1	2	..	..	3
Dental College Hospital, Calcutta.	P	Dentistry	..	..	25	..	2	10	..	..	..
Chittaranjan Hospital, Calcutta.	P	Tuberculosis.	..	..	21.3	..	2	4	..	..	3
Medical College Hospital, Calcutta.	P	"	..	..	104.2	..	2	2	..	..	11
Islamia Hospital, Calcutta	P	"	..	..	14	..	2	2	..	..	3
Sir Gurudas Institute, Narkeldanga.	P	"	..	..	16.7	..	2	2	..	..	2
Carmichael Medical College Hospital, Belgachia.	P	"	..	..	29.3	..	2	2	..	..	4



Categories--

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE I.

Province--UNITED PROVINCES.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
									Rs. A. P.							
AGRA DISTRICT.																
(At Headquarters.)																
Thomason Hospital, Agra .	G	General	300	288-91	671-88	38 1 4	29	9	1	..	7	22	..	..	..	
Lady Lyall and Dufferin Hospital, Agra.	G	Women	155	129-98	58-319	29 9 7	13	..	1	1	3	14	..	..	..	
Police Hospital, Agra .	G	Men	42	19-15	11-47	2 15 0	1	..	..	..	..	..	..	..	..	
Nil.																
(Others).																
ALLAHABAD DISTRICT.																
(At Headquarters.)																
Civil Hospital, Allahabad .	G	General	34	59-57	59-67	9 8 0	1	..	..	..	7	..	..	..	..	
Colvin Hospital, Allahabad .	G	"	65	66-75	455-60	1 15 0	2	2	..	..	1	..	..	..	..	
Police Hospital, Allahabad .	G	Men	52	25-48	14-92	0 13 0	1	..	..	..	..	..	..	..	..	

(Others).

Nil.

Dufferin Hospital, Allahabad	P	Women	78	47-62	76-86	2	8	0	3	..	2	5	..	11	..
Nil.															
(Others.)															
ALIGARH DISTRICT.															
(At Headquarters.)															
Sadr Hospital, Aligarh	DB	General	126	70-78	205-68	16	6	0	2	2	..	..	..	..	..
Police Hospital, Aligarh	G	Men	44	10-74	12-15	10	5	3	1	..	..	..	..	..	..
Dufferin Hospital, Aligarh	P	Women	35	26-82	60-11	39	15	0	2	..	..	1	2	..	..
(Others.)															
Hathras Dispensary	MP	General	28	8-62	140-40	0	6	10	1	..	..	..	..	..	..
AZAMGARH DISTRICT.															
(At Headquarters.)															
Sadr Hospital, Azamgarh	DB	General	36	33-23	228-32	33	0	0	1	..	..	..	..	..	..
Mission Hospital, Azamgarh	MN	"	40	38	30	30	0	0	3	..	1	1	7	..	..
Police Hospital, Azamgarh	G	Men	24	8-32	3-11	0	9	9	1	..	..	..	..	..	..
(Others.)															
ALMORA DISTRICT.															
(At Headquarters.)															
Sadr Hospital, Almora	DB	General	28	15-04	121-05	56	5	0	1	..	..	..	..	..	..
(Others.)															

Nil.

**Categories—**

G = Government.  
 MP = Municipal  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

**TABLE I—contd.**

**HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.**

**Province—UNITED PROVINCES.**

*Table showing particulars of work and medical and nursing staffs for 1937.*

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per inpatient per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
BANDA DISTRICT.																	
(At Headquarters.)									Rs. A. P.								
Sadr Hospital, Banda .	DB	General	34	25-07	215-81	10 15 6	1	..	..	..	..	..	..	..	..	..	
Police Hospital, Banda .	G	Men	27	10-19	10-83	2 14 10	1	..	..	..	..	..	..	..	..	..	
(Others.)																	
BAREILLY DISTRICT.																	
(At Headquarters.)																	
Sadr Hospital, Bareilly .	DB	General	104	72-71	278-71	35 11 0	2	..	..	..	..	..	..	..	..	..	
Police Hospital, Bareilly .	G	Men	31	20-18	21-96	13 8 0	1	..	..	..	..	..	..	..	..	..	
Dufferin Hospital, Bareilly .	P	Women	50	21-79	61-96	36 14 11	3	..	..	..	1	2	..	1	..	..	
Clara Swain Hospital, Bareilly	MN	General	80	28-70	24-10	56 10 4	3	..	..	..	2	5	15	..	..	..	
(Others.)																	
Aonla Dispensary .	DB	"	20	13-95	156-29	41 6 0	1	..	..	..	..	..	..	..	..	..	

*Nil.*

BENARES DISTRICT.													
(At Headquarters.)													
K. E. VII Hospital, Benares	DB	General	89	70-55	268-65	30 15 11	3	9	1	..	1	..	6
Police Hospital, Benares	G	Men	60	10-15	10-81	6 11 0	1	..	..	..	..	..	..
(Others.)													
Bhelupur Hospital	DB	General	30	5-99	163-04	85 1 9	1	..	..	..	..	..	..
BUNOR DISTRICT.													
(At Headquarters.)													
Sadr Hospital, Bijnor	DB	General	40	21-94	197-70	42 5 0	1	..	..	..	..	..	..
(Others.)													

NIL.

BULANDSHAHR DISTRICT.													
(At Headquarters.)													
P. W. Hospital, Bulandshahr	DB	General	58	32-90	169-01	36 1 5	1	1	..	..	..	..	..
L. H. Zenana Hospital, Bulandshahr.	P	Women	24	1-67	69-2	132 10 9	1	..	..	..	..	..	..
(Others.)													
Khurja Dispensary	DB	General	22	7-34	115-51	37 14 7	1	..	..	..	..	..	..
Sikandrabad Dispensary	DB	"	24	12-56	125-54	24 14 0	1	..	..	..	..	..	..
BALLIA DISTRICT.													
(At Headquarters.)													
Sadr Hospital, Ballia	DB	General	40	25-45	106-17	29 15 0	1	..	..	..	..	..	..
(Others.)													

NIL.

Categories—

- G = Government.
- MP = Municipal.
- DB = District Board.
- P = Private.
- MN = Missionary.

TABLE I—*contd.*

Province—UNITED PROVINCES.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1931.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
									Rs. A. P.							
BADAUX DISTRICT.																
(At Headquarters.)																
Sadr Hospital, Badaun	DB	General	52	46-17	211-1	10 0 0	1	..	..	..	..	..	..	..	..	
Police Hospital, Badaun	G	Men	21	9-23	6-43	4 8 9	1	..	..	..	..	..	..	..	..	
Female Hospital, Badaun	P	Women	22	10-49	92-69	16 14 9	1	..	..	..	..	..	..	..	..	
(Others.)																
BASTI DISTRICT.																
(At Headquarters.)																
Sadr Hospital, Basti	DB	General	94	88-97	218-88	15 8 0	2	..	..	..	..	..	..	..	..	





Categories—

G = Government.  
MP = Municipal.  
DB = District Board  
P = Private.  
MN = Missionary.

TABLE I—*contd.*

Province—UNITED PROVINCES.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
DEHRADUN DISTRICT— <i>contd.</i>															
(Others.)															
Civil Hospital, Mussorie	MP	General	24	13.77	43.82	61 0 0	2	..	..	..	..	..	..	..	..
Community Hospital, Mussorie.	P	"	21	11.96	11.96	237 8 0	2	..	..	2	3	..	..	..	..
St. Mary's Cottage Hospital, Mussorie.	P	"	24	11.71	..	190 12 0	3	1	3	3	3	..	..	..	..
ETAH DISTRICT.															
(At Headquarters.)															
Sadr Hospital, Etah	DB	General	30	22.05	146.13	30 8 0	1	..	..	..	..	..	..	..	..
Polke Hospital, Etah	G	Men	20	6.65	6.45	14 8 0	1	..	..	..	..	..	..	..	..
(Others.)															
Kasganj Mission Hospital	MN	Women	32	32.81	20.73	38 1 0	2	..	..	..	5	..	2	2	1

**ETAWAH DISTRICT.**

(At Headquarters.)

Station	DB	General	50	36-93	27	4	8	1	1	..	..	..
Sadr Hospital, Etawah	..	General	50	36-93	27	4	8	1	1	..	..	..
Police Hospital, Etawah	..	Men	24	7-37	50	14	6	1	..	..	..	..

(Others.)

**Näl,**

**FARUKHABAD DISTRICT.**

(At Headquarters.)

[illegible]

(Others.)

215.

FATEHPUR DISTRICT.

(At Headquarters.)

DB	General.	30	33-91	232-52	30 14 0	1	..	..	..	..
Sadr Hospital, Fatehpur.		30	33-91	232-52	30 14 0	1	..	..	..	..
Lila Lythe Broadwell Hospital, Fatehpur.	MN	40	16-06	55-8	91 11 0	2	..	1	2	4 14

(Others.)

23A

Categories—

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE I—*contd.*

Province—UNITED PROVINCES.

GENERAL HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.			
FYZABAD DISTRICT.																		
(At Headquarters.)																		
Sadr Hospital, Fyzabad	DB	General	70	48-72	216-52	Rs. A. P. 31 8 1	2	..	..	..	..	..	1	..	..	..	1	..
Police Hospital, Fyzabad	G	Men	30	10-67	6-87	13 14 0	1	..	..	..	..	..	..	..	..	..	..	..
Dufferin Hospital, Fyzabad	P	Women	22	16-23	70-85	43 4 0	1	..	..	..	..	1	..	..	..	..	..	..
(Others.)																		
Sri Ram Hospital, Ajudhia	DB	General	32	15-48	117-10	47 2 9	1	..	..	..	..	..	..	..	..	..	..	..
GHAZIPUR DISTRICT.																		
(At Headquarters.)																		
Sadr Hospital, Ghazipur	DB	General	52	28-70	145-16	22 15 4	1	1	..	..	..	..	..	..	..	..	..	..
Dufferin Hospital, Ghazipur	P	Women	30	10-60	45-95	19 10 1	1	..	..	..	..	..	..	..	..	..	..	..



Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board  
 P = Private.  
 MN = Missionary.

TABLE I—*contd.*

Province—UNITED PROVINCES

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
HAMIRPUR DISTRICT.															
(At Headquarters.)															
Sadr Hospital, Hamirpur	DB	General	23	13.0	149.43	Rs. A. P. 6 4 8	2	..	..	..	..	..	..	..	..
Police Hospital, Hamirpur	G	Men	25	6.72	4.11	5 2 2	1	..	..	..	..	..	..	..	..
(Others.)							Nil.								
HARDOI DISTRICT.															
(At Headquarters.)															
Sadr Hospital, Hardoi	DB	General	34	20.95	145.06	48 8 0	1	..	..	..	..	..	..	..	..
(Others.)							Nil.								
JALAU DISTRICT.															
(At Headquarters.)															
Sadr Hospital, Orai	DB	General	25	15.69	110.74	47 4 0	1	..	..	..	..	..	..	..	..



Province—UNITED PROVINCES.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
LUCKNOW DISTRICT.						Rs. A. P.									
(At Headquarters.)															
King George and Associated Hospitals, Lucknow.	P	General	362	316-81	996-01	97 12 0	24	26	1	10	18	26	3	..	9
Zalampur Hospital, Lucknow	P	"	88	70-31	266-05	73 7 3	2	3	1	4	..	..	..	..	8
Kings English Hospital, Lucknow.	P	"	50	31-65	359-46	63 6 4	1	..	..	..	..	..	..	..	..
Police Hospital, Lucknow	G	Men	44	22-67	17-22	18 6 0	1	..	..	..	..	..	..	..	..
The Kinaird Memorial Hos-pital, Lucknow.	MN	Women	80	96-90	151-56	..	4	..	..	3	3	12	5	9	..
Dufferin Hospital, Lucknow	P	"	67	66-87	87-59	41 6 0	3	..	1	1	6	7	6	7	..

NH.

(Others.)

**MEERUT DISTRICT.**

**(At Headquarters.)**

[illegible]

(Others.)

247.

**MIRZAPUR DISTRICT.**

(At Headquarters.)

Sadr Hospital, Mirzapur	DB	General	50	32.65	192.79	34	2	8	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..</
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(Others.)

Nil.

**MORADABAD DISTRICT.**

(At Headquarters.)

[illegible]

(Others.)

Lukes Hospital, Umedpur.	MN
" "	..
32	15 .
63 0 9	1 ..
1	1
..	..
..	..



TABLE I—*contd.*

**G = Government.**

**MP = Municipal.**

DB = District Board,

**P = Private.**

**FN = Missionary.**

## Province—UNITED PROVINCES.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Spendiary.	Honorary.	Matron.	Asstt. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
MUZAFFARNAGAR DISTRICT. (At Headquarters.) Sadr Hospital, Muzaaffarnagar	DB	General	58	38-20	154-85	Rs. A. P. 22 12 0	1	..	..	..	..	..	..	..	..
(Others.)															
MUTTRA DISTRICT.						Nil.									
(At Headquarters.) Sadr Hospital, Muttra .	DB	General	61	34-85	189-48	40 11 8	1	1	..	..	..	..	..	..	..
Police Hospital, Muttra .	G	Men	21	10-15	16-89	4 2 6	1	..	..	..	..	..	..	..	..
(Others.)															
MAINPURI DISTRICT.						Nil.									
(At Headquarters.) Sadr Hospital, Mainpuri .	DB	General	30	22-79	138-73	42 0 0	1	..	..	..	..	..	..	..	..
(Others.)															



## Province—UNITED PROVINCES

TABLE I—*contd.*

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
									Rs. A. P.								
SAHARANPUR DISTRICT.																	
(At Headquarters.)																	
Sadr Hospital, Saharanpur	DB	General	54	44.58	280.70	36 3 6	2	..	..	..	..	..	..	..	..	..	
Police Hospital, Saharanpur	G	Men	32	10.84	13.31	20 6 5	1	..	..	..	..	..	..	..	..	..	
(Others.)																	
General Diseases Hospital, Haridwar.	MP	General	32	13.67	108.47	42 1 4	1	..	..	..	..	..	..	..	..	..	
Roorkee Hospital	G	"	24	1.36	99.75	20 5 6	2	1	..	..	..	..	..	..	..	..	
SHAHJAHANPUR DISTRICT.																	
(At Headquarters.)																	
Sadr Hospital, Shahjahanpur	DB	General	37	32.44	238.99	12 8 0	1	..	..	..	..	..	..	..	..	..	
Police Hospital, Shahjahanpur	G	Men	27	9.74	11.47	5 3 0	1	..	..	..	..	..	..	..	..	..	

Dufferin Hospital, Shahjahanpur.	P	Women	26	11-07	89-65	7 2 0	1	..	..	1	..	..	..	..	..	..	..	..	..
(Others.)																			
Tilher Dispensary	DB	General	34	35-72	210-79	7 4 0	1	..	..	..	..	..	..	..	..	..	..	..	..
SITAPUR DISTRICT.																			
(At Headquarters.)																			
Sedr Hospital, Sitapur	DB	General	45	2-65	97-10	302 13 0	1	..	..	..	..	..	..	..	..	..	..	..	..
Dufferin Hospital, Sitapur	P	Women	28	1-68	26-82	418 4 0	1	..	..	..	..	..	..	..	..	..	..	..	..
(Others.)																			
Khairabad Dispensary	DB	General	41	6-50	96-93	87 5 0	1	..	..	..	..	..	..	..	..	..	..	..	..
SULTANPUR DISTRICT.																			
(At Headquarters.)																			
Sedr Hospital, Sultanpur	DB	General	24	16-43	196-88	58 9 6	1	..	..	..	..	..	..	..	..	..	..	..	..

(Others.)

Nil.

UNAO DISTRICT.

(At Headquarters.)

Sedr Hospital, Unao	DB	General	30	24-08	227-32	34 10 0	1	..	..	..	..	..	..	..	..	..	..	..	..
Police Hospital, Unao	G	Men	22	10-52	10-91	48 5 9	1	..	..	..	..	..	..	..	..	..	..	..	..
(Others.)																			

Nil.

## Province—UNITED PROVINCES.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	No. of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
AGRA DISTRICT.						Rs. A. P.									
District Board . . .	6	General	27	7-16	545-46	149 2 1	6	..	..	..	..	..	2	..	..
ALLAHABAD DISTRICT.															
ALIGAH DISTRICT.															
District Board . . .	10	General	40	16-89	937-22	151 0 0	2	..	..	..	..	..	..	..	..
Private . . .	3	2 Women 1 General	36	17-19	272-97	130 0 0	3	..	..	..	2	..	..	..	2
AZAMGARH DISTRICT.															
District Board . . .	6	General	39	22-15	447-28	33 8 0	6	..	..	..	..	..	..	..	..
ALMORA DISTRICT.															
District Board . . .	11	"	5-45	1-42	33-67	239 9 11	11	..	..	..	..	..	..	..	..

Private	2	11	2-19	27-21	802 4 0	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Missionary	1	5	0-09	14-91	161 15 0	1	..	..	..	..	..	..	..	..	..	..	..	..	..
BANDA DISTRICT.																			
District Board	6	49	19-61	398-42	116 5 3	6	..	..	..	..	..	..	..	..	..	..	..	..	..
BAREILLY DISTRICT.																			
District Board	5	25	3-77	361-90	33 15 0	5	..	..	..	..	..	..	..	..	..	..	..	..	..
BENARES DISTRICT.																			
District Board	1	12	8-42	97-20	44 9 6	1	..	..	..	..	..	..	..	..	..	..	..	..	..
BUNJORE DISTRICT.																			
Government	1	10	4-63	12-05	28 12 0	1	..	..	..	..	..	..	..	..	..	..	..	..	..
District Board	8	39	18-04	937-02	2 9 0	8	..	..	..	..	..	..	..	..	..	..	..	..	..
Private	5	40	19-79	218-85	1 10 0	5	..	..	..	..	..	..	..	..	..	..	..	..	..
BULANDSHAHR DISTRICT.																			
Government	1	18	8-23	8-80	7 2 1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
District Board	4	47	20-21	640-22	6 2 0	4	..	..	..	..	..	..	..	..	..	..	..	..	..
BALLIA DISTRICT.																			
Government	1	17	7-07	8-03	33 3 0	1	..	..	..	..	..	..	..	..	..	..	..	..	..
District Board	5	30	20-44	436-31	62 6 0	5	..	..	..	..	..	..	..	..	..	..	..	..	..
BUDAUN DISTRICT.																			
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE II—contd.

Province—UNITED PROVINCES.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	No. of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.	
BASTI DISTRICT.																
District Board	7	General	62	57-05	661-36	Rs. A. P. 28 7 2	7	..	..	1	..	..	..	..	..	..
BAHRAICH DISTRICT.																
Government	2	General	31	12-35	22-86	31 12 4	2	..	..	..	..	..	..	..	..	..
District Board	8	"	47	22-66	786-88	94 1 11	8	..	..	..	..	..	..	..	..	..
Private	2	"	11	3-16	80-70	112 4 6	2	..	..	..	..	..	..	..	..	..
BARABANKI DISTRICT.																
Government	1	Men	11	7-23	5-43	15 7 5	1	..	..	..	..	..	..	..	..	..
District Board	4	General	16	11-76	559-43	89 5 3	4	..	..	..	..	..	..	..	..	..
CANNORE DISTRICT.																
Government	1	General	6	0-06	41-2	2,089 15 10	1	..	..	..	..	..	..	..	..	..





TABLE II—*contd.* Province—UNITED PROVINCES.  
HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	No. of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
						Rs. A. P.									
FATEHPUR DISTRICT.															
Government	1	Men	16	5.68	7.45	22 0 0	1	..	..	..	1	..	..	..	..
District Board	4	General	36	28.14	343.50	173 0 9	4	..	..	..	1	..	..	..	..
FYZABAD DISTRICT.															
District Board	7	General	51	15.85	487.72	4 8 5	7	..	..	..	..	..	..	..	..
Private	1	"	8	2.57	37.98	100 7 3	1	..	..	..	..	..	..	..	..
Missionary	2	"	20	14	137	133 0 1	2	..	..	2	1	1	3	..	..
GHAZIPUR DISTRICT.															
Government	1	Men	8	7.24	..	29 1 11	1	..	..	..	..	..	..	..	..
District Board	3	General	14	4.69	239.41	171 0 10	3	..	..	..	..	..	..	..	..

GOBAKHUR DISTRICT.												
Government	1	General	2	0-07	115-99	4,229	3	8	1	..	..	..
District Board	12	"	83	38-31	1626-04	129	6	6	12	..	..	..
GONDA DISTRICT.												
Government	1	Men	13	7-64	6-22	22	0	0	1	..	..	..
District Board	7	General	58	4-58	124-00	97	0	0	7	..	..	..
Private	6	"	35	3-37	59-04	141	0	0	6	..	..	..
GARHWAL DISTRICT.												
Government	5	General	49	2-2	15-3	186	4	11	5	..	..	..
District Board	9	"	59	2-15	37-33	168	8	11	9	..	..	..
HAMIRPUR DISTRICT.												
Government	..	"	..	..	..	..	..	..	..	..	..	..
HARDOI DISTRICT.												
District Board	8	General	81	36-28	816-91	636	8	1	8	..	..	..
JALAIN DISTRICT.												
District Board	4	General	40	21-76	485-47	49	14	9	4	..	..	..
JHANSI DISTRICT.												
Government	1	Men	4	4-84	7-29	0	12	4	2	..	..	..
District Board	5	General	39	16-31	468-10	94	11	4	5	..	..	..
Private	..	Women	4	1-80	116-98	136	15	0	1	..	..	..

TABLE II—*contd.* Province—UNITED PROVINCES.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	No. of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.	
JALNPUR DISTRICT.							Rs. A. P.									
District Board . . . .	7	General	50	23.50	634.84	78 8 5	7	.	.	.	.	.	.	2	.	.
LAKHIMPUR-KHURI DISTRICT.																
District Board . . . .	5	General	25	3.0	89.29	71 5 0	5	.	.	.	.	.	.	.	.	.
LUCKNOW DISTRICT.																
District Board . . . .	1	General	4	3.05	103.09	102 7 4	1	.	.	.	.	.	.	.	.	.
MIRZAPUR DISTRICT.																
District Board . . . .	6	General	39	9.01	536.09	169 3 6	6	.	.	.	.	.	.	.	.	.
Private . . . .	2	Women	10	2.43	193.40	176 5 4	2	.	.	.	.	.	.	.	.	.
Missionary . . . .	1	General	6	4.83	36.5	10 0 0	1	.	.	.	1	.	.	1	.	.



TABLE II—*concl'd.*

Province—UNITED PROVINCES.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	No. of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.	
PARTABGARH DISTRICT.							Rs. A. P.									
Government . . . . .	1	Men	13	8.9	9.16	11 9 0	1									
District Board . . . . .	6	General	36	11.90	405.17	3 7 0	6									
Private . . . . .	5	"	50	2.28	261.37	4 5 9	5					1				
PULWAH DISTRICT.																
Government . . . . .	1	Men	8	5.92	10.31	38 14 1	1									
District Board . . . . .	7	General	44	3.42	68.15	136 14 1	1									
Private . . . . .	1	Women	18	12.72	53.55	42 8 9	1					1				
RAE BARELI DISTRICT.																
Government . . . . .	1	Men	16	8.85	6.05	13 4 9	1									
District Board . . . . .	12	General	64	26.87	1,088.71	105 3 8	12									
Private . . . . .	1	Women	7	5.70	38.74	44 14 0	1									



Province—UNITED PROVINCES.

TABLE III.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
AGRA DISTRICT.					Rs. A. P.					
Municipal . . . . .	4	General	608.48	301 5 0	4	..	..	..	..	..
District Board . . . . .	5	"	661.88	261 6 0	-5	..	..	..	..	..
Private . . . . .	1	"	43.5	32 10 0	1	..	..	..	..	..
ALLAHABAD DISTRICT.										
Municipal . . . . .	3	"	586.82	330 5 3	3	..	1	..	..	..
Private . . . . .	2	"	86.93	80 14 6	2	..	..	..	..	..
ALIGARH DISTRICT.										
Government . . . . .	1	"	32.81	162 0 0	1	..	..	..	..	..
District Board . . . . .	1	"	38.82	229 14 8	1	..	..	..	..	..
Private . . . . .	1	"	13.27	283 4 9	1	..	..	..	..	..
AZAMGARH DISTRICT.										
District Board . . . . .	1	"	115.67	252 0 0	1	..	..	..	..	..

**ALMORA DISTRICT.**

**BANDA DISTRICT.**

**BAREILLY DISTRICT.**

### BENARES DISTRICT.

**BIJNOR DISTRICT.**

**BULANDSHAHR DISTRICT.**

**BALLIA DISTRICT.**

**BUDAUN DISTRICT.**



TABLE III—*contd.* Province—UNITED PROVINCES

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
BASTI DISTRICT.					Rs. A. P.				
District Board . . . . .	2	General	106.38	95 13 3	-2	..	..	..	..
BAHRAICH DISTRICT.									
District Board . . . . .	2	"	108.37	148 6 8	2	..	..	..	..
BABA BANKI DISTRICT.									
District Board . . . . .	4	"	135.25	211 13 0	4	..	..	..	..
Private . . . . .	1	"	35.97	120 0 0	1	..	..	..	..
CAWNPORE DISTRICT.									
Municipal . . . . .	3	General	833.25	321 8 8	3	..	..	..	..
District Board . . . . .	5	"	212.14	142 3 10	5	..	..	..	..
Private . . . . .	1	"	81.0	245 0 0	..	1	1	..	..

## DEHRA DUN DISTRICT.

Government	2	"	63.49	375 11 8	2	..	..	..	..
Municipal	2	"	32.39	307 9 4	2	..	..	..	..
District Board	4	"	78.73	155 9 8	2	..	..	..	..

## ETAH DISTRICT.

Municipal	1	Women	64.14	167 12 0	1	..	..	..	..
Private	1	General	10.44	48 8 0	..	..	..	..	..

## ETAWAH DISTRICT.

District Board	1	"	49.21	171 11 0	1	..	..	..	..
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## FARRUKHABAD DISTRICT.

..	..	..	..	..	..	..	..	..	..
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## FATEHPUR DISTRICT.

..	..	..	..	..	..	..	..	..	..
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## FYZABAD DISTRICT.

District Board	1	Women	20.43	125 0 0	1	..	1	..	..
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## GHAZIPIUR DISTRICT.

Government	1	General	51.35	255 0 0	1	..	..	..	..
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TABLE III—*contd.* Province—UNITED PROVINCES.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
GORAKHPUR DISTRICT.				Rs. A. P.					
..	..	..	..	..	..	..	..	..	..
GONDA DISTRICT.									
District Board	1	General	34.52	176 10 8	1	..	..	..	..
GARHWAL DISTRICT.									
..	..	..	..	..	..	..	..	..	..
HAMIRPUR DISTRICT.									
Private	1	General	6.02	..	1	..	..	..	..
HARDOI DISTRICT.									
..	..	..	..	..	..	..	..	..	..
JALAUN DISTRICT.									
Private	1	General	18.00	75 0 0	1	..	..	..	..

## Jhansi District.

## Jaunpur District.

## Lakhimpur Kheri District.

## District Board

General

3

249-52

609 0 0

3

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## Lucknow District.

## District Board

7

771-83

244 6 8

7

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## Missionary

1

468-49

601 0 0

2

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## Meerut District.

## Municipal

1

86-42

325 0 0

1

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## District Board

2

101-46

205 15 3

2

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## Private

3

140-07

197 11 7

3

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## Mirzapur District.

## District Board

1

29-31

162 13 0

1

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## Missionary

1

51-15

25 0 0

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## Moradabad District.

## District Board

2

180-44

197 0 0

2

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TABLE III—*concd.* Province—UNITED PROVINCES

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Num. ber.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
MUZAFFARNAGAR DISTRICT.				Rs. A. P.					
Private . . . . .	2	General	189-35	300 0 0	1	..	1	2	..
MOTIRA DISTRICT.									
. . . . .	..	..	..	..	..	..	..	..	..
MAINPURI DISTRICT.									
. . . . .	..	..	..	..	..	..	..	..	..
NAINITAL DISTRICT.									
. . . . .	..	..	..	..	..	..	..	..	..
PARTABGARH DISTRICT.									
District Board . . . . .	1	General	107-70	118 8 0	1	..	..	..	..
Private . . . . .	1	"	24-72	371 6 10	1	..	..	..	..

## PILIBHIT DISTRICT.

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## RAEBARELI DISTRICT.

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258 12 0

16-13

General

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## SAHARANPUR DISTRICT.

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## SHAHJAHANPUR DISTRICT.

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1

197 2 4

48

General

1

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## SITAPUR DISTRICT

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## SULTANPUR DISTRICT.

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## UNAO DISTRICT.

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1

168 12 0

36-33

General

1

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District Board

## Province—UNITED PROVINCES

TABLE IV.

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

Categories—  
 G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
ACRA DISTRICT.						Rs. A. P.					
Thomason Hospital, Agra	G	Ophthalmic Department. Dentistry Tuberculosis.	56	87.05	164.07	38 1 4	3	..	..	..	1 Part-time.
			..	..	21.28	38 1 4	2	1	..	..	..
Leper Asylum, Agra	MP	Leprosy	50	38.66	0.025	11 3 6	1	..	..	..	..
Infectious Diseases Hospital, Agra (in Thomason Hospital).	G	Infectious diseases.	20	1.75	..	38 1 4		No separate staff.			
				..							
Mental Hospital, Agra	G	Mental	617	.559-04	3.0	5 0 0	1	..	..	..	..
X-Ray Department of Thomason Hospital, Agra.	G	X-Ray	..	..	..	..	1	..	..	..	..
ALLAHABAD DISTRICT.											
Colvin Hospital, Allahabad	G	Dentistry	..	..	1.44	..	..	1	..	..	..
T. B. Clinic, Colvin Hospital.	G	Tuberculosis.	5	3.08	22.64	9 13 0	1	..	3 Health Visitors.		

M. D. Eye Hospital, Allahabad	G	Ophthalmic.	24	40-88	144-7	2 0 9	1	..	..	..	..
Naini Leper Home, Allahabad	MN	Leprosy	30	24	4	9 0 9	2	..	1	..	..
ALIGARH DISTRICT.											
Mohan Eye Hospital, Aligarh	P	Ophthalmic.	60	55-5	86-1	1 15 11	2	2	..	..	..
ALMORA DISTRICT.											
An X-Ray plant has been installed at Sadr Hospital, Aligarh and the Muslim University Hospital each and is worked by the Medical Officers there.											
Tuberculosis Sanatorium, Almora.	MN	Tuberculosis.	40	15-65	..	58 3 0	1	..	..	1	2+5 Pupil Nurses.
Almora Leper Asylum	MN	Leprosy	100	85	40	11 12 0	1	..	..	..	..
Leper Asylum, Chandaq	MN	"	72	60-12	20	10 0 0	..	1	..	..	..
BAREILLY DISTRICT.											
Mental Hospital, Bareilly	G	Mental	402	409-84	..	10 11 6	4	..	..	..	..
BENARES DISTRICT.											
K. E. VII Hospital, Benares	P	Ophthalmic.	..	..	4-54	..	..	2	..	..	..
		Veneral Diseases.	..	..	10-75	..	..	1	..	..	..
		Dentistry	..	..	8-02	..	..	1	..	..	..
		Tuberculosis.	..	..	12-14	..	..	1	..	..	..



## Province—UNITED PROVINCES

TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

G = Government

MP = Municipal

DB = District Board.

P = Private.

MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
BENARES DISTRICT—contd.											
Tuberculosis Sanatorium, Sarnath.	P	Tuberculosis	11	7.3	..	Rs. A. P. 7 1 2	1	..	..	..	..
Skin Dispensary, Benares	P	Leprosy	..	..	26.60	..	1	..	..	..	..
Raja Kali Charan Ghoshal's Asylum.	P	"	24	21.77	..	12 4 8	1	..	..	..	..
Mental Hospital, Benares	G	Mental	373	307.41	..	11 2 0	2	1	1	..	..
K. E. VII Hospital, Benares	P	X-Ray									
Separate statistics not available.											
BAREILLY DISTRICT.											
Aman Sabha Leper Asylum, Bareilly.	P	Leprosy	24	20.56	7.24	16 9 9	1	..	..	..	..
CAWNPORE DISTRICT.											
U. H. M. Hospital and Prince of Wales Dispensary, Cawnpore.	G	Ophthalmic Deptt. Ear, Nose & Throat. Dentistry	..	0.31	18.12	..	3	5	1	2	..
			..	0.05	14.22	..	..	..	..	..	..
			..	..	8.19	..	..	..	..	..	..

Separate statistics not available.

Bhagwandei Leper Hospital, Cawnpore.	P	Leprosy	40	29	4	28	15	7	1	..	..	..
Skin Clinic Dispensary, Cawn- pore.	P	"	..	45	..	134	0	0	1	..	..	..
Infectious Diseases Hospital, Cawnpore.	MP	Infectious Diseases.	8	0-90	31-71	43	1	0	1	..	..	..
U. H. M. Hospital and Prince of Wales Dispensary, Cawn- pore.	G	X-Ray										
DEHRA DUN DISTRICT.												
MacLaren Leper Hospital	P	Leprosy	80	75-86	19-00	28	2	0	2	1	..	..
Infectious Diseases Hospital, Dehra Dun.	MP	Infectious Diseases.	12	0-07	..	6	7	0	1	..	..	..
Infectious Diseases Hospital, Rishikesh.	MP	"	8	0-80	8-50	5	8	0	*1	..	..	..
Infectious Diseases Hospital, Musorie.	MP	"	8	0-15	..	1,257	0	0	..	..	..	1
Infectious Diseases Huts, Musorie.	MP	"	12	1-10	..	189	0	0	1	..	..	..
FYZABAD DISTRICT.												
Infectious Diseases Hospital, Fyzabad.	MP	"	18	0-24	..	7	6	0	1	..	..	..
Sadr Hospital, Fyzabad	G	X-Ray	..	0-047	0-27	0	1	4	1	..	..	..
GARRHWAL DISTRICT.												
Leper Asylum, Srinagar	P	Leprosy	30	29-50	..	9	2	6	1	..	..	..
GONDA DISTRICT.												
Infectious Diseases Hospital, Gonda.	MP	Infectious Diseases.	8	0-05	..	625	0	0	..	..	..	..

Separate Statistics not available.

\* For six months only.

## Province—UNITED PROVINCES.

TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
JHANSI DISTRICT. Infectious Diseases Hospitals, Jhansi.	•MP	Infectious diseases.	4	0-71	0-25	Rs. A. P. 5 0 0	1	..	..	..	..
							..	1	..	..	..
LAKHIMPUR KHURI DISTRICT. Gupta Leper Home, Lakhimpur.	P	Leprosy	12	8	50	9 8 0	..	..	..	..	..
							..	..	..	..	..
LUCKNOW DISTRICT. King George's Hospital, Lucknow, and its Associated Hospitals.	P	Ophthalmic. Venereal diseases. Ear, Nose & Throat. Dentistry Tuberculosis. Leprosy Infectious diseases.	42	55-21 ..	177-83 52-7 95-68 15-72 25-2	97 12 0 .. .. 97 12 0 ..	3	3	..	1	6
							..	1	..	..	..
			4	..	..	..	..	2	..	..	1
			42	11-3	..	..	9	2	..	..	11
			35	0-29	53-08	..	1	2	..	..	..
			10	5-92	13-4	..	4	2	..	..	1

Balrampur Hospital	P	Mental X-Ray & Radium.	..	..	4-2 15-8	..	1	..	1	..	2
Infectious Diseases Hospital, Lucknow.	MP	Ophthalmic. Dentistry	..	..	40-21 18-33	..	..	1	..	..	..
		Infectious diseases.	52	21	55-1	59 3 4	1	..	..	..	..
MEERUT DISTRICT.											
L. P. Hospital, Meerut	DB	Dentistry	..	..	7-37	..	..	1	..	..	..
Leper Hospital, Meerut	MN	Leprosy	60	53	..	11 3 0	1	..	..	..	..
MUZAFFARNAGAR DISTRICT.											
Leper Hospital, Muzaffarnagar	DB	"	4	4-03	0-01	1 11 0	1	..	..	..	..
Sadr Hospital, Muzaffarnagar	DB	X-Ray									
NAINI TAL DISTRICT.											
K. E. VII Sanatorium, Bhowali.	P	Tuberculosis.	142	89-5	..	90 0 0	3	..	1	..	12*
Infectious Diseases Hospital, Naini Tal.	P	Infectious diseases.	8	6-59	..	714 0 0	2	..	..	2	..
Taluka E. Hospital	MP	"	30	1-10	..	181 13 0	1	..	..	..	..
SABARANPUR DISTRICT.											
Infectious Diseases Hospital, Sabaranpur.	MP	"	42	2-6	..	3 11 3	1	..	..	..	..

No separate account kept.

TABLE I.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P. = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
HISSAR DISTRICT.						Rs. A. P.									
(At Headquarters.)															
Civil Hospital, Hissar .	MP	General	32	19-68	163-75	35-12 0	2	..	..	..	..	..	1	..	1
(Others.)															
Lady Hailey Hospital, Bhiwani.	P.	Women	24	56-29	64-56	16 0 0	2	..	..	..	..	..	..	..	..
Fateh Hospital, Bhiwani .	MN	"	110	71-28	48-3	21 5 0	3	..	1	1	3	19	..	..	..
Civil Hospital, Sirsa .	MP	General	28	12-60	98-72	43 13 0	1	..	..	..	..	..	1	..	..
Civil Hospital, Bhiwani .	MP	"	32	28-36	155-90	31 8 0	1	..	..	..	..	..	..	..	..
Civil Hospital, Tohana .	DB	"	44	13-45	100-44	18 15 0	1	..	..	..	..	..	..	..	..
ROHTAK DISTRICT.															
(At Headquarters.)															
Civil Hospital, Rohtak	G		26	19-67	208-03	59 0 0	1	..	..	..	..	..	..	..	..



TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
Rs. A. P.																
AMBALA DISTRICT.																
(At Headquarters.)																
Civil Hospital, Ambala	G	General	41	20.68	284.09	78 1 11	2	..	..	..	..	..	1	..	..	..
Police Hospital, Ambala	G	Men	20	2.27	14.56	103 5 5	1	..	..	..	..	..	..	..	..	..
Philadelphia Hospital	MN	Women	50	36.8	29.7	46 1 1	3	..	1	..	4	12	..	3	..	..
(Others.)																
Civil Hospital, Rupar	G	General	24	15.23	203.75	51 6 10	1	..	..	..	..	..	1	..	..	..
Mission Hospital, Jagadhri	MN	"	60	45.6	33.89	34 3 0	3	..	1	1	3	2	1	..	..	7
Civil Hospital, Jagadhri	MP	"	20	17.12	170.61	41 11 7	1	..	..	..	..	..	1	..	..	..
SIMLA DISTRICT.																
(At Headquarters.)																
Ripon Hospital, Simla	MP	"	70	62.05	163.49	200 7 3	4	..	1	3	10	..	..	..	..	..

\* Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board  
 P = Private.  
 MN = Missionary.

Lady Reading Hospital, Simla	P	Women	100	68-41	34-47	96	8	0	4	1	1	4	4	19	..	3	..
Walker Hospital, Simla	P	General	39	8-5	6-8	905	5	6	1	1	1	3	6	..	..	..	..
<b>KANGRA DISTRICT.</b>																	
<i>(At Headquarters.)</i>																	
Mission Hospital, Kangra	MN	"	32	18-0	36-0	34	9	6	1	..	1	..	4	..	..	..	..
<i>(Others.)</i>																	
Rural Dispensary, Nagrota	DB	"	22	8-48	67-10	31	7	9	1	..	..	..	..	..	1	..	..
Female Hospital, Gaili	DB	Women	26	10-65	36-40	35	6	4	1	..	..	..	..	..	1	..	..
Civil Hospital, Barsar	DB	General	57	22-65	53-89	21	4	4	1	..	..	..	..	..	1	..	..
St. Lukes Hospital, Palampur	MN	Women	50	23-51	41-96	39	2	5	1	..	1	..	3	..	1	1	..
<b>HOSHIAHPUR DISTRICT.</b>																	
<i>(At Headquarters.)</i>																	
Civil Hospital, Hoshiarpur	G	General	46	42-147	360-43	59	15	6	2	..	..	..	..	..	2	..	..
<i>(Others.)</i>																	
Civil Dispensary, Mukerian	DB	"	24	110-98	224-41	7	10	8	1	..	..	..	..	..	1	..	..
Civil Dispensary, Garhshankar	DB	"	24	10-43	214-06	26	12	0	1	..	..	..	..	..	1	..	..
Civil Dispensary, Dasuya	DB	"	28	9-24	175-40	70	2	1	1	..	..	..	..	..	1	..	..
Civil Dispensary, Una	DB	"	62	22-87	130-49	25	15	3	1	..	..	..	..	..	1	..	..



TABLE I—contd.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
									Rs. A. P.								
JULLUNDUR DISTRICT.																	
(At Headquarters.)																	
Civil Hospital, Jullundur	G	General	212	70-13	365-82	40 1 7	3		..	..	..	2	..	..	1	..	..
(Others.)																	
Civil Hospital, Banga	MP	"	150	259-3	348-38	2 14 11	2		..	..	..	..	..	..	1	..	..
LUDHIANA DISTRICT.																	
(At Headquarters.)																	
Civil Hospital, Ludhiana	G	"	40	40-48	268-88	41 14 0	3		..	..	..	..	..	..	2	..	..
Memorial Hospital, Ludhiana	P	Women	260	202-67	429-62	50 0 0	12		..	..	7	12	60	14	27	..	..
(Others.)																	
Civil Hospital, Jagraon	MP	General	23	15-04	158-35	48 0 0	1		..	..	..	..	..	..	1	..	..
Civil Dispensary, Khanna	DB	"	30	28-55	186-06	15 4 0	1		..	..	..	..	..	..	1	..	..

## FERROZPORE DISTRICT.

## (At Headquarters.)

Civil Hospital, Ferozepore	G	"	46	30-82	364-01	54 13 4	2	..	..	..	1	..	2.
Francis Newton Mission Hospital for Women & Children, Ferozepore.	MN	Women	50	48-29	26-61	35 14 4	4	..	1	1	4	12	..
(Others.)													
Civil Hospital, Fazilka	G	General	30	47-82	189-42	22 14 8	2	..	..	..	..	..	..
"M. D. Hospital, Moga	DB	"	78+ 708 in sheds.	211-54	626-24	15 6 8	5	..	..	..	2	..	..
Silver Jubilee Memorial Hospital, Abohar.	MP	"	26	9-60	272-99	80 7 8	2	..	..	..	1	..	..
Civil Hospital, Gidderbaha	MP	"	46	35-83	254-68	22 11 6	1	..	..	..	1	..	1
LAHORE DISTRICT.													
(At Headquarters.)													
Mayo Hospital, Lahore	G	"	478	421-77	587-76	103 3 0	17	7	1	5	18	48	..
Lady Willingdon Hospital, Lahore.	G	Women	74	60-62	27-34	153 5 4	4	1	1	3	14	10	..
Lady Aitchison Hospital, Lahore.	G	"	100	91-11	142-91	109 5 0	5	..	1	2	11	15	..
Police Hospital, Lahore	G	Men	50	11-19	55-35	37 8 5	1	..	..	..	..	..	..
Sir Ganga Ram Free Hospital, Lahore.	P	General	27	26-83	326-63	99 6 3	5	8	1	..	2	6	2
(Others.)													
Civil Hospital, Kasur	MP	"	36	14-05*	137-24	66 6 1	1	..	..	..	..	..	..

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937..

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
AMRITSAR DISTRICT. (At Headquarters.)						Rs. A. P.									
Civil Hospital, Amritsar	G	General	176	217-09	253-32	53 2 3	21	..	1	3	6	12	..	..	5
Police Hospital, Amritsar	G	"	25	4-23	19-44	68 5 0	1	..	..	..	..	..	..	..	..
Hospital for Women, Amritsar	MP	Women	20	22-19	146-48	43 4 1	2	..	..	..	2	..	4	..	..
St. Catherine Hospital, Amritsar.	MN	"	100	80-23	89-64	23 13 9	2	1	1	3	4	20	3	4	..
(Others.)															
Central Khalsa Hospital, Tarn Taran.	P	General	24	3-22	129-74	97 14 6	1	..	..	..	..	..	..	..	..
C. E. Z. Mission Hospital, Asraipur.	MN	Women	32	29-08	41-48	23 7 9	1	..	1	..	1	4	4	4	..
St. Mary's Hospital, Tarn Taran.	MN	"	30	10-26	54-80	36 12 0	1	..	..	..	1	..	1	..	..

**GURDASPUR DISTRICT.**

*(At Headquarters.)*

**Civil Hospital, Gurdaspur**

(Others.)

Civil Hospital, Batala .

**Civil-Dispensary, Gharota**

**SIALKOT DISTRICT.**

(At Headquarters )

**Civil Hospital, Sialkot :**

**Memorial Hospital for Women  
& Children, Sialkot.**

**(Others:)**

Civil Hospital, Daska .

C. E. Z. Mission Hospital,  
Narowal.

**GUJRANWALA DISTRICT.**

(At Headquarters.)

Civil Hospital, Gujranwala .

(Others.)

Civil Hospital, Wazirabad .

TABLE I—*contd.*  
HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.  
\* Table showing particulars of work and medical and nursing staffs for 1937.

Categories—  
G. = Government,  
MP = Municipal,  
DB = District Board,  
P = Private,  
MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
SHEIKHUPURA DISTRICT.						Rs. A. P.									
(At Headquarters.)															
Civil Hospital, Sheikhupura.	G	General	41	21-77	119-80	44 10 8	1	..	..	..	..	..	..	..	..
Police Hospital, Sheikhupura	G	Men	22	2-35	4-90	81 12 11	1	..	..	..	..	..	..	..	..
(Others.)															
Civil Hospital—Sangla	DB	General	32	78-50	417-73	8 4 7	1	..	..	..	..	..	..	..	..
Nankana Sahib	G	..	22	30-52	169-71	30 11 2	2	..	..	..	..	1	..	..	..
GUJRAT DISTRICT.															
(At Headquarters.)															
Civil Hospital, Gujrat.	MP	..	52	23-64	208-93	49 15 5	2	..	..	..	..	..	..	..	..
Dow Memorial Mission Hos-pital, Gujrat.	MN	Women	35	21	40	62 8 10	2	..	1	1	2	5	..	..	..



Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board  
 P = Private.  
 MN = Missionary.

TABLE I—*contd.*

Province—PUNJAB.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
						Rs. A. P.										
RAWALPINDI DISTRICT.																
(At Headquarters.)																
Civil Hospital, Rawalpindi	MP	General	80	90-75	312-08	51 1 4	5	1	1	..	1	1	3	..	3	..
Police Hospital, Rawalpindi	G	Men	34	9-75	9-92	15 3 5	1	..	..	..	..	..	..	..	..	..
Holy Family Hospital, Rawalpindi.	MN	Women	65	32-87	27-50	107 0 8	2	1	1	5	..	18	4	1	..	..
Dayanand Mission Hospital, Rawalpindi.	MN	"	60	14-61	69-89	37 15 1	1	..	..	..	..	..	2	..	..	..
(Others.)																
Civil Hospital, Gujarkhan	DB	General	40	26-58	177-33	36 15 11	2	..	..	..	..	..	1	..	1	..
Jubilee Municipal Hospital, Murree.	MP	"	55	15-50	62-13	172 1 8	3	..	1	..	..	1	..	..	..	..
Mission Hospital, Taxila	MN	Women	45	25-46	15-10	80 6 0	2	..	1	..	2	1	..	..	..	..

<b>CAMPBELLTOWN DISTRICT.</b>											
<i>(At Headquarters.)</i>											
Civil Hospital, Campbellpur.	G.	General	36	23-10	130-01	45	13	3	2	..	..
Police Hospital, Campbellpur	G.	Men	20	2-88	9-02	81	4	0	1	..	..
<i>(Others.)</i>											
Civil Hospital, Hazro .	MP	"	28	14-66	110-36	53	9	0	1	..	..
<b>MIANWALI DISTRICT.</b>											
<i>(At Headquarters.)</i>											
Civil Hospital, Mianwali .	G	General	40	25-80	135-76	37	3	0	1	..	..
Victoria Memorial Female Hospital, Mianwali.	MN	Women	28	13-19	90-42	43	13	0	1	..	..
<i>(Others.)</i>											
Civil Hospital, Isakhel .	MP	General	26	9-84	196-47	41	9	0	1	..	..
<b>MONTGOMERY DISTRICT.</b>											
<i>(At Headquarters.)</i>											
Civil Hospital, Montgomery .	G	General	52	27-59	222-13	51	0	0	2	..	..
Female Mission Dispensary, Montgomery.	MN	Women	25	10-3	34-43	68	0	0	2	..	..
<i>(Others.)</i>											
Civil Hospital—Okara .	MP	General	36	29-11	170-95	25	0	0	1	..	..
Pakpattan .	MP	"	20	10-27	127-36	96	0	0	1	..	..



Province—PUNJAB.

TABLE I—*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Categories—  
 G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
LYALLPUR DISTRICT.															
(At Headquarters.)															
Civil Hospital, Lyallpur	DB	General	53	54.21	223.22	Rs. A. P. 50 10 0	3	.	.	.	1	.	.	.	.
Female Hospital, Lyallpur	DB	Women	26	39.85	105.89	39 4 0	2	.	.	.	2	.	1	.	.
(Others.)															
Civil Hospital, Gojra	MP	General	94 +400 tempy.	313.08	413.21	7 8 0	6	.	.	.	.	.	.	.	.
JHANG DISTRICT.															
(At Headquarters.)															
Civil Hospital, Maghiana	MP	General	56	47.43	300.68	35 0 0	2	.	.	.	.	.	.	.	1
(Others.)															
Civil Hospital—Chiniot	MP	"	22	18.11	194.92	69 0 0	1	.	.	.	.	.	.	.	.
Shorkot	DB	"	20	22.20	288.83	35 0 0	3	.	.	.	.	.	.	.	.



Province—PUNJAB.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
<b>HISSAR DISTRICT.</b>															
Government	{ 3 1	Men Women	48	4-255	32-643	53 2 0	4	..	1	..	..	..	..	1	..
Municipal	{ 1 1	Men Women	24	9-1	106-075	47 12 6	2	..	..	..	..	..	..	..	..
District Board	30	General	140	1-85	8-326	187 8 3	30	..	..	..	..	..	..	..	..
<b>ROHTAK DISTRICT.</b>															
Government	{ 2 1	Men Women	34	10-63	100-97	39 8 0	3	..	..	..	..	..	..	..	..
Municipal	2	General	24	14-98	126-99	34 10 6	2	..	..	..	..	..	..	..	..
District Board	19	"	103	4-14	15-67	146 14 0	19	..	..	..	..	..	..	..	..
Private	1	Women	12	5-91	81-63	46 8 0	1	..	..	..	..	..	..	..	..

## GUBGAON DISTRICT.

Government	1	Men	16	4-44	13-95	51	9	6	1	..	..	..	..	..	..	..	..
Municipal	5	General	41	28-30	630-34	56	12	0	5	..	..	..	..	..	..	..	..
District Board	27	"	127	47-96	54-06	125	13	10	27	..	..	..	..	..	..	..	..

## KARNAL DISTRICT.

Government	2	"	35	11-40	70-12	14	13	0	2	..	..	..	..	..	..	..	..
District Board	24	"	121	2-68	79-54	293	15	8	24	..	..	..	..	..	..	..	..

## AMBALA DISTRICT.

Municipal	2	"	22	8-36	120-90	16	12	7	2	..	..	..	..	..	..	..	..
District Board	15	"	70	1-69	81-77	181	12	4	15	..	..	..	..	..	..	..	..

## SIMLA DISTRICT.

Government	1	"	7	5-07	50-563	55	4	0	1	..	..	..	..	..	..	..	..
District Board	1	"	4	4-20	39-97	83	13	0	1	..	..	..	..	..	..	..	..

## KANGRA DISTRICT.

Government	1	Men	50	8-05	74-97	78	13	5	6	..	..	..	..	..	..	..	..
	4	General															
District Board	24	General	148	3-50	44-87	115	15	11	24	..	..	..	..	..	..	..	..

## HOSHIAPOUR DISTRICT.

Government	1	Men	18	3-06	23-85	69	15	4	1	..	..	..	..	..	..	..	..
District Board	21	General	87	5-34	100-52	108	14	4	21	..	..	..	..	..	..	..	..

TABLE II—*contd.*

## HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
JULLUNDUR DISTRICT.																		
Government	{ 1	Men	24	6.50	112.42	Rs. A. P. 89 14 6	2	..	..	..	..	..	1	..	..	..	..	
Municipal	4	General	38	5.82	139.80	70 4 8	4	..	..	..	..	..	2	..	..	..	..	
District Board	16	"	90	3.64	92.64	110 0 7	16	..	..	..	..	..	..	..	..	..	..	
LUDHIANA DISTRICT.																		
Government	{ 1	Men	26	11.28	62.14	57 6 6	2	..	..	..	..	..	1	..	..	..	..	
Municipal	1	General	3	2.92	114.92	95 2 0	1	..	..	..	..	..	..	..	..	..	..	
District Board	13	"	73	5.82	67.80	154 4 0	13	..	..	..	1	..	7	..	..	..	..	
FEROZPORE DISTRICT.																		
Government	1	Men	14	1.74	18.19	146 7 4	1	..	..	..	..	..	..	..	..	..	..	
Municipal	2	General	20	10.47	207.19	40 1 4	3	..	..	..	..	..	..	..	..	..	..	



TABLE II—*contd.*

Province—PUNJAB.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
GUJRANWALA DISTRICT.																		
Government . . . . .	{ 2	Men	27	5.44	71.85	Rs. A. P. 80 14 0	4	..	..	..	..	..	1	..	..	..	..	
General	1	General																
Municipal . . . . .	1	Women	16	15.76	94.10	29 6 5	1	..	..	..	..	..	..	..	..	..	..	
District Board . . . . .	16	General	70	2.45	86.71	113 1 9	16	..	..	..	..	..	..	..	..	..	..	
SHEKHUPURA DISTRICT.																		
Government . . . . .	{ 1	Men	15	5.64	47.48	193 2 9	2	..	..	..	..	..	..	..	..	..	..	
General	1	Women																
Municipal . . . . .	1	General	4	3	122.42	120 4 9	1	..	..	..	..	..	..	..	..	..	..	
District Board . . . . .	19	"	93	2.64	72.05	128 14 4	19	..	..	..	..	..	..	..	..	..	..	





TABLE II—*concd.*

## HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
MIANWALI DISTRICT.																		
Government	1	Men	12	1.39	20.70	Rs. A. P. 206 4 0	1	..	..	..	..	..	..	..	..	..	..	..
Municipal	2	General	34	13.08	140.47	56 11 0	2	..	..	..	..	..	1	..	..	..	..	..
District Board	16	"	91	3.91	80.20	141 9 0	16	..	..	..	..	..	..	..	..	..	..	..
MONTGOMERY DISTRICT.																		
Government	1	Men	27	14.52	140.30	42 0 0	2	..	..	..	..	..	..	..	..	..	..	..
Municipal	2	"	26	56.02	230.87	22 0 0	2	..	..	..	..	..	..	..	..	..	..	..
District Board	30	"	146	2.08	57.29	127 0 0	30	..	..	..	..	..	..	..	..	..	..	..
LYALLPUR DISTRICT.																		
Government	1	Men	12	2.16	11.44	66 0 0	1	..	..	..	..	..	..	..	..	..	..	..
Municipal	1	General	12	20.23	198.59	23 4 0	1	..	..	..	..	..	..	..	..	..	..	..
District Board	22	"	150	4.15	91.89	138 9 5	22	..	..	..	..	..	..	..	..	..	20	..



TABLE III.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
HISSAR DISTRICT.									
Government	3	Men	29-11	Rs. A. P. 188 13 0	3	..	..	..	..
ROHTAK DISTRICT.									
Government	1	"	25-50	140 0 0	1	..	..	..	..
GURGAON DISTRICT.									
..	..	..	..	..	..	..	..	..	..
KARNAL DISTRICT.									
Government	2	Men	38-8	138 2 8	2	..	..	..	..
Municipal	1	General	303-24	511 6 9	1	..	..	..	..
District Board	1	"	48-78	208 0 0	1	..	..	..	..

## AMBALA DISTRICT.

Government . . . . .

3

Men

52.12

214 9 4

3

## SIMLA DISTRICT.

Government . . . . .

2

General

48.69

218 15 0

2

Municipal . . . . .

1

"

96.4

370 0 0

1

District Board . . . . .

2

"

48.69

218 15 0

2

## KANGRA DISTRICT.

## HOSHIAPUR DISTRICT.

## JULIANDUR DISTRICT.

## LUDHIANA DISTRICT.

Government . . . . .

2

General

8.50

198 0 0

1

Municipal . . . . .

1

"

176.44

327 0 0

1

District Board . . . . .

1

"

71.87

327 0 0

1

## FEROZEPUR DISTRICT.

Government . . . . .

6

Men

28.98

227 13 6

6

TABLE III—*contd.*

Province—PUNJAB.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
LAHORE DISTRICT.									
Government	{ 2 4	Men } General }	57.55	294 0 1	7	..	1	..	..
Municipal	{ 5 3	Women } General }	126.96	310 0 5	8	..	..	..	..
District Board	1	General	69.22	223 4 0	1	..	..	..	..
Missionary	1	Women	80.36	368 14 8	1	1	2	..	..
AMRITSAR DISTRICT.									
Government	1	Men	86.07	231 1 3	1	..	..	..	..
Municipal	3	General	199.52	408 7 0	3	..	..	..	..
GUERDASPUR DISTRICT.									
Government	2	Men	65.80	212 8 3	2	..	..	..	..
Municipal	1	General	168.32	304 8 0	1	..	..	..	..

**SIALKOT DISTRICT.**

	2	Men	170-17	243	1	4	2
Government	.	.	.	.	.	.	.
Municipal	1	General	351-54	570	3	0	1
District Board	1	"	104-63	304	5	4	1

**GEJBRANWALA DISTRICT.**

Category	Men	Women	Total	Percentage
Government	4	1	5	1.7
Municipal	1	1	2	0.7
Private	1	1	2	0.7
<b>Total</b>	<b>6</b>	<b>3</b>	<b>9</b>	<b>3.1</b>

**SHEIKHUPURA District.**

	5	Men	41-15	128	4	9	5	..	..
Government	.	.	.	.	.	.	.	.	.
District Board	.	.	.	.	.	.	.	.	.
General	1	1	71-57	178	1	4	1	..	..

**GUJARAT DISTRICT.**

	2	.	.	.	2	Men	54-64	210	9	4	2	..	..	..
Government	.	.	.	.	.									
Municipal	.	.	.	.	.	1	General	162-80	276	4	0	1	..	..
District Board	.	.	.	.	.	2	"	63-92	244	0	0	2	..	..

**SHAHPUR DISTRICT.**

Government	.	.	.	.	5	•	Men	48-89	213	2	7	5	..	..
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TABLE III—*concl.*

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
JHELUM DISTRICT.					Rs. A. P.					
Government	2	Men	22.49	182 2 8	2	..	..	..	..	..
Municipal	1	General	210.25	442 7 8	1	..	..	..	..	..
RAWALPINDI DISTRICT.										
CAMPBELLPUR DISTRICT.					..	..	..	..	..	..
MIANWALI DISTRICT.					..	..	..	..	..	..
MONTGOMERY DISTRICT.					..	..	..	..	..	..
Government	11	Men	42.46	176 0 0	9	..	..	..	..	..
District Board	1	General	58.95	111 13 0	1	..	..	..	..	..

## LYALPUR DISTRICT.

Government	7	Men	65-34	107 12 0	7	..	..	..	..
Municipal	1	General	216-43	472 8 0	1	..	..	..	..
District Board	3	"	31-96	261 9 4	3	..	..	..	..
Missionary	3	Women	21-30	91 10 0	..	..	5	1	..

## JHANG DISTRICT.

Government	3	Men	184-89	202 8 0	3	..	..	..	..
District Board	1	General	87	64 9 0	1	..	..	..	..

## MULTAN DISTRICT.

Government	11	Men	356-17	212 0 0	11	..	..	..	..
Municipal	1	General	298-51	467 0 0	1	..	..	..	..

## MUZAFFARGARH DISTRICT.

Government	2	Men	25-29	211 4 8	2	..	..	..	..
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## DERA GHAZI KHAN DISTRICT.

Government	2	Men	23-17	438 13 4	2	..	..	..	..
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Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

TABLE IV.

SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
ROHTAK DISTRICT.											
Civil Hospital, Beri	G	Ophthalmic.	36	85-31	71-83	Rs. A. P. 7 5 0	1	..	..	..	..
Civil Dispensary, Bahadurgarh	MP	"	14	14-46	32-48	20 10 0	1	..	..	..	..
Rural Dispensary, Mundlana	DB	"	12	18-69	30-26	14 8 0	1	..	..	..	..
GURGAON DISTRICT.											
Civil Hospital, Gurgaon	G	"	42	0-18	21-01	2 14 0	2	..	..	..	2
Civil Dispensary, Nuh	DB	"	26	1-15	20-60	0 9 0	1	..	..	..	1
Rural Dispensary—											
Dhanj	DB	"	16	0-43	15-86	4 0 0	1	..	..	..	1
Aurangabad	DB	"	4	0-29	7-76	10 2 0	1	..	..	..	1
Bhaugrwal	DB	"	4	0-45	7-76	8 0 0	1	..	..	..	..

## AMBALA DISTRICT.

## Civil Dispensary—

Sadhaura . . .	MP	10	14-59	135-15	0 11 11	1	..	..	..	..	..	..
Kalka . . .	MP	12	30-40	106-66	..	1	..	..	..	..	..	..
Behar . . .	DB	12	97-74	240-81	0 3 0	1	..	..	..	..	..	..
Leper Home, Ambala . .	MN	71	68-0	5-0	8 8 0	1	..	..	..	..	..	..

## SIMLA DISTRICT.

Ripon Hospital, Simla . .	MP	14	7-97	..	161 9 0	2	..	1	3	9 (summer), 16 (winter).
Lady Reading Hospital, Simla	P	12	68-41	34-47	4 15 0	4	..	1	3	4
		5	68-41	34-47	4 15 0		..			
Kot Khai Dispensary . .	G	7	5-07	50-56	51 12 1	1	..	..	..	1
Leper Home, Subathu . .	MN	12	160-5	2-0	8 1 0	1	..	..	..	7
Municipal Health Department, Simla.	MP	..	..	..	..	..	..	..	..	..

The staff employed in the Venereal Diseases Clin attends the patients.

Infectious Diseases Hospital, Simla.	MP	8	1-76	..	223 7 0		..	..	..	..
Municipal Health Department, Simla.	MP	31	5-6	..	52 9 0	1	..	..	..	..

TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

Categories—  
 G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
KANURA DISTRICT.											
Civil Hospital--											
Hamirpur . . .	G	Leprosy	..	..	0.34	Rs. A. P.	1	..	..	..	1
Dharamsala . . .	DB	"	..	..	0.48	..	1	..	..	..	..
Kulu . . .	DB	"	..	..	0.12	..	1	..	..	..	..
Civil Dispensary--											
Banjar . . .	DB	"	..	..	0.55	..	1	..	..	..	1
Sujanpur . . .	DB	"	..	..	0.07	..	1	..	..	..	1
Barsar . . .	DB	"	..	..	0.09	..	1	..	..	..	1
Kanura . . .	DB	"	..	..	0.28	..	1	..	..	..	1
Jawalamukhi . . .	DB	"	..	..	0.02	..	1	..	..	..	..
Garhi . . .	DB	"	..	..	0.06	..	1	..	..	..	1
Dera Gopipur . . .	G	"	..	..	0.06	..	1	..	..	..	..
Jogindernagar . . .	G	"	..	..	0.23	..	1	..	..	..	1



TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

G = Government.  
 MP = Municipal.  
 DB = District Board.  
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 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
JULLUNDUR DISTRICT.											
Civil Hospital—											
Jullundur	G	Ophthalmic.	212	70-13	365-82	Rs. A. P. 40 1 8	2.	..	..	3	
Nakodar	G	"	12	8-24	211-60	89 3 2	1	..	..	1	
Phallaur	MP	"	12	10-69	117-10	41 10 4	1	..	..	..	
Banga	MP	"	150	259-30	348-38	2 14 11	2	..	..	1	
Civil Dispensary—											
Nurmahal	MP	"	14	6-56	139-20	70 4 0	1	..	..	} . . . .	
Shahkot	DB	"	9	7-08	147-02	33 6 10	1	..	..		
Lohian Khas	DB	"	8	7-25	124-27	28 15 1	1	..	..		
Mahatpur	DB	"	10	8-43	152-67	29 1 8	1	..	..		
(for all cases.)											

Tuberculosis Hospital, Jullundur City.	P	Tuberculosis.	..	..	68-0	..	2	..	..	..	1
Civil Hospital—											
Jullundur . . . . .	G	Leprosy	212	70-13	355-82	40 1 8	3	..	..	..	2
Nakodar . . . . .	G	"	12	8-24	211-60	89 3 2	1	..	..	..	1
Banga . . . . .	MP	"	150	259-30	348-38	2 14 11	2	..	..	..	1
Civil Dispensary, Nurnahal .	MP	"	14	6-56	139-20	70 4 0	1	..	..	..	..
Civil Hospital, Adampur .	DB	"	4	3-13	102-50	240 1 11	1	..	..	..	..
Civil Dispensary, Mahatpur .	DB	"	10	8-43	152-67	29 1 8	1	..	..	..	..
LUDHIANA DISTRICT.											
Memorial Hospital, Ludhiana	P	Ophthalmic.	16	11	112						
		Veneral Diseases.	..	35	50						
		Tuberculosis.	24	20	12		25	1	8	10	
		Leprosy	..	..	26						
FEROZPORE DISTRICT.											
M. D. Hospital, Moga . . .	DB	Ophthalmic.	726	156-02	223-73	15 6 6	4	..	..	..	..
Civil Hospital, Giddarbaha .	MP	"	46	17-91	..	22 13 0	1	..	..	..	1

\* Figures for the whole hospital. Separate figures not available.

† No separate account kept.

TABLE IV—contd.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
LAHORE DISTRICT.											
Mayo Hospital, Lahore .	G	Ophthalmic.	150*	86.12	93.8	Rs. A. P. 120 11 9	6	..	1	1	4
Sir Ganga Ram Free Hospital, Lahore.	P	"	6	10.2	78.74	93 0 0	3	..	..	..	2
Mayo Hospital, Lahore .	G	{ Venereal Diseases. Dentistry	..	..	77.93	..	1	..	..	..	..
Punjab Dental Hospital, Lahore.	G.	Dentistry	..	..	3.82	..	1	An officer deputed by the deMontmorency Dental College attends 3 days during a week.			
May Hospital, Lahore .	G		..	..	115.55	..	3	..	..	..	..
May Hospital, Lahore .	G	Tuberculosis.	74	74	36.08	120 12 0	5	1	1	1	8
Tuberculosis Institute, Guntli Bazar, Lahore.	MP	"	..	..	53.52	..	1 (Part-time.)	..	..	..	..
Shrimati Gulab Devi Tuberculosis Hospital for Women, Lahore.	P	"	25	15	..	77 0 0	2	..	..	2	1
European Infectious Diseases Hospital, Lahore.	MP	Infectious Diseases.	10	0.70	..	1,085 9 6	1 (Part-time.)	..	..	..	1

Indian Infectious Diseases Hospital, Lahore.	MP	"	65	18-53	..	73	10	0	1	..	..	..
Punjab Mental Hospital, Lahore.	G	Mental	1,008	977-56	..	27	5	4	6	1	4	..
AMRITSAR DISTRICT.												
Civil Hospital, Amritsar	G	Ophthalmic, Venereal Diseases, Ear, Nose & Throat, Tuberculosis, Leprosy	36	64-10	93-20	53	2	6	5	1	1	5
			8	4-13	4-94	53	2	6		..	..	..
			12	13-00	28-0	53	2	6		..	..	..
			15	9-5	1-68	53	2	6		..	..	..
Leprosy Centre, Amritsar	MN	Leprosy	229	220	5-0	8	1	4	1	..	..	2
Infectious Diseases Hospital, Amritsar.	MP	Infectious Diseases.	12	4-21	..	88	2	1	1	..	..	..
SIALKOT DISTRICT.												
Civil Hospital, Sialkot	G	Leprosy	..	..	0-02	..	..	..	3	..	..	2
Civil Dispensary, Baddowali	DB	"	..	..	0-003	..	..	..	1	..	..	1
GUJRANWALA DISTRICT.												
Ophthalmic Hospital, Gujranwala.	P	Ophthalmic.	67	17-45	50-15	9	2	0	..	1	..	..
GUJRAT DISTRICT.												
Civil Hospital—Gujrat	MP	Leprosy	52	..	0-07	..	..	..	1	..	..	..
Kharian	DB	"	20	..	0-5	..	..	..	1	..	..	..

\* 50 Temporary.



## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

TABLE IV—*contd.*

Province—PUNJAB.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
GUJARAT DISTRICT— <i>contd.</i>											
Civil Dispensary— Pahranwali	DB	Leprosy	..	..	0-01	..	1	..	..	..	..
Kunjah	DB	"	2	..	..	..	1	..	..	..	..
Kedarabad	DB	"	4	..	..	..	1	..	..	..	..
SHARUR DISTRICT.											
Civil Dispensary, Naushera	G	Ophthalmic.	12	10-50	103-23	35 1 4	1	..	..	..	..
Rural Dispensary, Kotmoman	DB	"	4	55-91	143-21	6 8 6	1	..	..	..	..
Civil Hospital, Bhalwal	DB	"	36	31-99	224-64	18 4 10	1	..	..	..	..
Civil Dispensary, Shahpur	DB	"	24	20-20	89-50	39 13 5	1	..	..	..	..
Rural Dispensary, Mithatiwana	DB	"	4	8-51	53-16	30 15 4	1	..	..	..	..
Civil Dispensary, Sillanwali	DB	"	8	23-16	131-72	15 15 11	1	..	..	..	..
Civil Hospital, Sargodha	G	Veneral Diseases.	34*	28-49	115-73	46 4 11	1	..	..	..	..



## Province—BIHAR.

TABLE I.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
										Rs. A. P.								
																</		



TABLE I—*contd.*

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Subsidiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
SARAN DISTRICT.						Rs. A. P.									
(At Headquarters.)															
Police Hospital, Chapra	G	Men	37	14.03	5.33	25 1 10	1	..	..	..	..	..	..	..	..
Chapra Sadr Hospital	MP & DB	General	105	104.62	187.82	24 9 0	4	..	..	..	1	1	..	..	..
(Others.)															
Siwan Sub-divisional Hospital	MP	"	44	54.12	207.15	18 6 4	2	..	..	..	1	..	..	..	..
Gopalganj Sub-divisional Hospital.	DB	"	39	74.98	203.41	16 2 9	2	..	..	..	..	..	..	..	..
Hathwa Raj Victoria Hospital	P	"	100	99.76	251.69	20 14 8	2	..	..	..	2	..	..	..	..
CHAMPARAN DISTRICT.															
(At Headquarters.)															
Motihari Sadr Hospital	MP & DB	General	67	79.01	129.57	27 4 11	2	..	..	..	2	..	..	5	..

(Others.)	P	"	112	105-04	246-41	24	2	0	3	..	..	4	..	8	..	..	..
Bettiah Raj King Edward Memorial Hospital.																	
Bettiah Raj Lady Dufferin Hospital.	P	Women	110	119-30	183-40	27	2	0	3	..	1	2	2	7	11	2	..
MUZAFFARPUR DISTRICT.																	
(At Headquarters.)																	
Police Hospital, Muzaifarpur	G	Men	24	55-74	6-01	14	0	0	1	..	..	..	..	..	..	..	..
Sadr Hospital, Muzaifarpur	MP & DB	General	193	160-80	238-30	32	5	6	3	1	..	..	5	..	..	2	..
(Others.)																	
Hajipur Sub-divisional Hospital.	MP	"	32	21-80	131-62	41	9	7	2	..	..	..	..	..	..	..	..
Sitamarhi Sub-divisional Hospital.	MP	"	35	11-66	177-11	23	1	1	2	..	..	..	..	..	..	1	..
DARBHANGA DISTRICT.																	
(At Headquarters.)																	
Darbhanga Medical School Hospital.	G	General	121	257-11	358-33	22	15	0	15	2	..	4	4	8	..	1	..
Lady Willington (Raj Darbhanga) Hospital.	P	"	84	74-40	483-80	36	6	6	9	2	..	..	4	..	..	1	..
(Others.)																	
Sanaipur Sub-divisional Hospital.	MP	"	21	24-27	130-77	38	3	0	2	..	..	..	..	..	..	..	..
Madhubani Sub-divisional Hospital.	MP	"	36	32-37	260-42	12	0	0	2	..	..	..	..	..	..	..	..

Province—BIHAR.

TABLE 1—*contd.*

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
MONGHYR DISTRICT. (At Headquarters.)						Rs. A. P.									
Monghyr Sadr Hospital	MP & DB	General	98	92-28	189-86	36 0 0	4	2	..	3	1	2	..	2	1
(Others.)															
Jamni Sub-divisional Hospital	DB	"	36	28-53	226-05	57 0 0	2	..	..	..	..	..	..	..	..
Begusarai Sub-divisional Hospital.	DB	"	40	32-96	149-00	25 0 0	2	..	..	..	..	..	..	..	..
Banda Mission Hospital	MN	"	100	9-10	12-70	..	2	..	..	..	..	..	..	..	..
Jamalpur Municipal and Rail-way Hospital. (Managed by E. I. Ry.)	MP	"	66	24	140	..	6	..	..	..	..	6	..	..	..
BHAGALPUR DISTRICT. (At Headquarters.)															
Bhagalpur Police Hospital	G	Men	23	6-41	8-60	42 14 0	1	..	..	..	..	..	..	..	..

Nathnagar Constable Training School Hospital, Bhagalpur.	G	"	26	5-82	10-64	43	1	0	1	..	..	..	..	..	..	..	..
Bhagalpur Sadr Hospital	MP & DB	General	94	86-90	143-23	30	0	0	2	4	1	..	1	1	..	..	1*
Rani Shibbarini Female Hospital, Bhagalpur.	P	Women	31	29-07.	69-01	24	9	0	1	..	1	..	1	2	1	..	..
(Others.)																	
Supaul Sub-divisional Hospital.	DB	General	41	37-64.	98-39	26	1	8	2	..	..	..	..	1	..	..	..
Madhipura Sub-divisional Hospital.	DB	"	25	22-81	212-80	23	10	0	1	..	..	..	..	..	..	..	..
PURNEA DISTRICT.																	
(At Headquarters.)																	
Purnea Police Hospital	G	Men	28	15-43	8-47	14	11	2	1	..	..	..	..	..	..	..	..
Purnea Sadr Hospital	MP & DB	General	74	87-85	206-70	24	0	0	3	..	..	..	1	..	1	..	..
(Others.)																	
Kishanganj Sub-divisional Hospital.	MP	"	26	36-87	169-22	34	2	1	2	..	..	..	..	1	..	..	..
Araria Sub-divisional Hospital	DB	"	32	34-90	184-66	25	0	9	2	..	..	..	..	..	..	..	..
SANTAL-PARGANAS DISTRICT.																	
(At Headquarters.)																	
Dumka Sadr Hospital	MP & DB	General	36	45-52	111-90	32	0	0	3	..	..	..	..	1	..	..	..



Province--BIHAR.

TABLE I--*contd.*

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Categories--

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.	
SANTAL-PARGANAS DISTRICT— <i>contd.</i>																
(Others.)																
Deoghar Sub-divisional Hospital.	MP	General	36	21.06	86.21	29 7 0	2	..	..	..	1	..	..	..	..	
Sahibganj Hospital	MP	"	22	8.53	125.67	56 4 0	1	..	..	..	..	..	..	..	..	
Benghuria Christian Hospital	MN	"	65	44.40	43.9	2 13 0	2	..	1	1	..	..	1	4	15	
Hiranpur Hospital	MN	"	50	2	30	..	..	2	..	..	1	1	..	1	3	
HAZARIBAGH DISTRICT.																
(At Headquarters.)																
Hazaribagh Sadir Hospital	MP & DB	General	43	35.52	216.44	57 10 0	3	..	..	..	1	..	..	..	..	
St. Columbus Zenana Hospital, Hazaribagh.	P	Women	84	72.27	22.72	62 8 0	3	..	1	2	3	21	..	3	..	
(Others.)																
Koderna Hospital	P	General	27	18.65	118.45	17 10 0	1	..	..	..	..	..	1	..	..	



## Province—BIHAR.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
PATNA DISTRICT.																		
Government	1	Men	8	0.24	3.18	Ra. A. P.	1	..	..	..	..	..	..	..	..	..	..	..
Municipal	1	General	18	21.56	262.57	24 14 6	1	..	..	..	..	..	..	..	..	..	..	..
Municipal	2	Women	24	21.37	170.04	56 5 9	2	..	..	..	..	1	..	..	2	1	..	..
District Board	1	General	8	0.82	92.21	282 40 0	1	..	..	..	..	..	..	..	..	..	..	..
GAYA DISTRICT.																		
Municipal	1	General	9	4.8	191.68	82 4 0	1	..	..	..	..	..	..	..	1	..	..	..
District Board	10	"	65	30.23	1,017.18	203 9 1	10	..	..	..	..	..	..	..	6	..	..	..
Private	1	"	12	5.08	137.50	56 4 0	1	..	..	..	..	..	..	..	..	..	..	..
SHAHARAD DISTRICT.																		
Municipal	2	General	26	21.96	214.17	31 15 0	3	..	..	..	..	..	..	..	2	..	..	..
District Board	5	"	65	47.52	804.69	18 3 8	5	..	..	..	..	..	..	..	4	..	..	..



TABLE II—*concd.*

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
						Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.	
PUENEA DISTRICT.															
Municipal . . . . .	1	General	8	9-85	108-61	Rs. A. P. 70 10 0	1	1	1	1	1	1	1	1	1
District Board . . . . .	1	"	6	1-79	111-77	182 13 0	1	1	1	1	1	1	1	1	1
SANTAL PARAGANAS DISTRICT.															
Government . . . . .	2	General	7	0-505	64-99	43 3 6	2	1	1	1	1	1	1	1	1
Private . . . . .	5	"	60	34-69	367-27	43 3 6	5	1	1	1	1	2	1	1	1
HAZARIBAGH DISTRICT.															
Government . . . . .	1	Men	17	7-52	7-48	76 7 0	1	1	1	1	1	1	1	1	1
Municipal . . . . .	1	General	16	17-75	135-21	36 0 4	1	1	1	1	1	1	1	1	1
District Board . . . . .	3	"	33	18-20	268-36	169 13 6	3	1	1	1	1	1	1	1	1
Private . . . . .	2	"	29	16-23	172-88	82 1 1	2	1	1	1	1	1	1	1	1



TABLE III.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
PATNA DISTRICT.									
Government	3	General	723.51	Rs. A. P. 649 0 2	5	..	..	..	..
Municipal	1	"	138.50	271 0 0	1	..	..	..	..
District Board	26	"	2,895.99	251 6 10	26	..	..	1	..
Private	1	"	137.5	279 0 3	2	..	..	..	..
GAYA DISTRICT.									
District Board	30	General	2,191.28	220 12 6	30	..	..	..	..
SHAHABAD DISTRICT.									
Government	5	General	318.84	201 6 7	5	..	..	..	..
District Board	17	"	1,694.16	201 13 5	17	..	..	2	..

## SARAN DISTRICT.

Municipal	1	General	139-52	278 0 0	1	..	..	..
District Board	16	"	1,467-47	254 5 10	16	..	2	..
Private	1	"	65-00	199 0 0	1	..	..	..

## CHAMPARAN DISTRICT.

Government	2	General	22-76	189 10 8	2	..	..	..
District Board	21	"	1,494-35	207 5 6	21	..	..	..

## MUZAFFARPUR DISTRICT.

Government	1	General	74-71	263 9 6	1	..	..	..
Municipal	1	"	114-66	302 0 0	1	..	..	..
District Board	19	"	1,755-49	214 3 8	19	..	1	..
Private	4	"	610-29	199 2 2	4	..	..	..

## DARBHANGA DISTRICT.

District Board	31	General	2,967-03	184 10 2	31	..	..	..
Private	10	"	991-13	123 6 3	10	..	..	..

## MONGHER DISTRICT.

District Board	16	General	1,923-82	301 10 9	16	..	..	..
Private	3	"	338-04	190 0 0	3	..	..	..



## Province—BIHAR.

TABLE III—concl'd.

HOSPITALS AND DISPENSARIES WITH OUT ACCOMMODATION FOR IN-PATIENTS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
BHAGALPUR DISTRICT.									
Municipal . . . . .	1	General	88.4	Rs. A. P. 152 0 0	1	..	..	..	..
District Board . . . . .	22	"	1,872.60	207 13 9	22	..	..	..	..
Private . . . . .	4	"	239.07	201 15 0	4	..	..	..	..
PURNA DISTRICT.									
Municipal . . . . .	2	General	273.80	369 9 0	2	..	..	..	..
District Board . . . . .	31	"	1,537.07	216 3 2	31 (2 part time)	..	..	..	..
Private . . . . .	4	"	144.19	127 14 0	2	..	..	..	..
SANTAL PARGANAS DISTRICT.									
Government . . . . .	2	General	102.18	211 15 2	2	..	..	..	..
District Board . . . . .	10	"	498.20	190 4 10	10	..	..	..	..
Private . . . . .	3	"	220.27	215 3 9	3	..	..	..	..

### HAZARIBAGH DISTRICT.

District Board	.	.	.	14
Private	.	.	.	2
Missionary	.	.	.	3

137	4	3	14
270	0	7	2
110	8	0	3

General	563-34
"	72-07
"	123-50

## General

**RANCHI DISTRICT.**

Government	.	.	2
District Board	.	.	11

257 3 7  
167 11 70

95.43  
92.54

## General

**PALAMAU DISTRICT.**

District Board	.	.	.	.	13
Private	.	.	.	.	1

144	5	11
126	0	0

480.26  
105.23

## General

MANBHAM DISTRICT.

District Board	.	.	.	23
Private	.	.	.	21

132 3 2  
102 6 0

55.13  
56.706

**General**

**SINGHBHUM DISTRICT.**

District Board	.	.	.	9
Private	.	.	.	1

0	0	0
154	0	161

109-50  
115-50

Categories—

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE IV.

SPECIAL HOSPITALS AND CLINICS.

Province—BIHAR.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
PATNA DISTRICT.											
Patna Medical College Hospital, Patna.	G	Ophthalmic	74	66.66	188.74	Rs. A. P.					
		Veneral Diseases.	10	13.65	28.76	46 0 0					
		Ear, Nose & Throat.	12	13.43	73.93	46 0 0					
		Dentistry	..	..	20.73	..					
		Tuberculosis.	18	20.28	5.6	46 0 0					
Sir Edward Gait Skin Clinic, Gulzaribagh.	P	Infectious diseases.	24	21.4	34.2	46 0 0					
		Leprosy	..	..	24.2	..	1	..	..	..	
GAYA DISTRICT.											
Lepet Asylum, Gaya.	P	Leprosy	240	236	75	7 13 4	1	..	..	..	
Infectious Diseases Hospital, Gaya.	P	Infectious diseases.	36	8.55	217.17	74 5 0	1	..	..	..	

See Table I. No separate staff is sanctioned for these clinics.

## SHAHABAD DISTRICT.

Arrah Sadr Hospital

DB

Ophthalmic

\*

1-2

9-24

23 1 3

Venereal diseases.

\*

0-15

2-2

23 1 3

Ear, Nose &amp; Throat.

\*

0-07

11-25

23 1 3

Dentistry

\*

0-21

6-81

23 1 3

Tuber-  
culosis

\*

0-18

1-49

23 1 3

Leprosy

\*

0-05

0-25

23 1 3

Infectious diseases.

8

0-04

..

## SARAN DISTRICT.

Chapra Sadr Hospital

MP &amp; DB

Leprosy

..

..

2-2

..

Siwan Sub-divisional Hospital

MP &amp; DB

"

..

..

9-05

..

Gopalganj Sub-divisional Hospital.

DB

"

..

..

22-84

..

## CHAMPARAN DISTRICT.

Motihari Leper Clinic

P

Leprosy

..

..

18-0

..

Bettiah Leper Clinic

P

"

..

..

27-0

..

Rangarh Leper Clinic

P

"

..

..

16-15

..

Dhaka Leper Clinic

G

"

..

..

4-9

..

Bokhari Leper Clinic

G

"

..

..

4-4

..

See Table I. No separate staff is sanctioned for these clinics.

\* No separate beds have been allotted for these clinics.

No separate staff is sanctioned for the clinics.

TABLE IV—contd.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
MUZAFFARPUR DISTRICT.											
Muzaffarpur Leper Asylum	MN	Leprosy	60	54	143	10 0 0	1	..	..	..	..
Sitamari Leper Clinic	MP	"	..	..	31-82	..	1	..	..	..	..
Mahuwa Leper Clinic	DB	"	..	..	5-77	..	1	..	..	..	..
Sursand Leper Clinic	DB	"	..	..	22-13	..	1	..	..	..	..
Jaintpur Leper Clinic	DB	"	..	..	5-66	..	1	..	..	..	..
Maniary Leper Clinic	P	"	..	..	11-83	..	1	..	..	..	..
Kat% Leper Clinic	DB	"	..	..	13-01	..	1	..	..	..	..
Keotaa Leper Clinic	DB	"	..	..	24-00	..	1	..	..	..	..
DARBHANGA DISTRICT.											
Darbhanga Medical School Hospital, Laheriaasrai.	G	Ophthalmic Venereal diseases.	8	235†	2,907-0†	22 15 0					
			*	56†	1,010-0†	22 15 0					

See Table I. No separate staff is sanctioned for the clinics.

See Table I. No separate staff is sanctioned for the clinics.

		* No separate beds have been allotted for these clinics † Figures represent total number of new cases treated			
Ear, Nose & Throat.	*	96†	4,867†	22 15 0	
Dentistry	..	..	1,132†	..	
Tuberculosis.	5	168†	607†	22 15 0	
Leprosy	..	..	114†	..	
Infectious diseases.	*	1,164†	17,782†	22 15 0	
Mental	*	2†	5†	22 15 0	
Leprosy	..	..	76	..	1   ..   ..   ..   ..
See Table I. No separate account is maintained.					
X-Ray & Radium.	P				
MONGHYR DISTRICT.					
Leprosy Clinic, Darbhanga	P				
Lady Willington (Raj Darbhanga) Hospital.	P				
MONGHYR DISTRICT.					
Monghyr Leprosy Clinic	P		0-68	..	1   ..   ..   ..   ..
BHAGALPUR DISTRICT.					
Sadr Hospital, Bhagalpur	MP & DB	22	243	26 1 0	
Supaul Sub-divisional Hospital	DB	4	80	26 1 8	
Madhipura Sub-divisional Hospital.	DB	3	57	27 14 10	
Banka Hospital	DB	3	98	62 13 11	
Sadr Hospital, Bhagalpur	MP & DB	42	256	26 1 0	
Supaul Sub-divisional Hospital	DB	4	8	26 1 8	

See Table I. No separate staff is sanctioned for the clinics.

\* No separate beds have been allotted for these clinics.

TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
BHAGALPUR DISTRICT— <i>contd.</i>							Rs. A. P.				
Madhipura Sub-divisional Hospital.	DB	Tuberculosis.	*	1	43	27 14 0					
Banka Hospital	DB	"	*	3	56	62 13 11					
Anti-Tuberculosis Clinic, Bhagalpur.	MP	"	..	..	295	..	1	..	..	..	1 (Health Visitor).
* No separate beds allotted for the Clinic.											
Lepet Asylum, Bhagalpur	MN	Leprosy	224	186	15	6 4 0	..	1	1	..	..
Lepet Clinic, Supaul	DB	"	..	..	27-41	..	..	2	..	..	..
Sadr Hospital, Bhagalpur	MP & DB	X-Ray	*	140	28	26 1 0	1	..	..	..	..
SANTAL PARGANAS DISTRICT.											
Lepet Clinic—											
Dumka	MP	Leprosy	..	..	23-14	..	1	..	..	..	..
Jamundi	DB	"	..	..	34-0	..	1	..	..	..	..





TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

Name of the hospital or clinic and the place where situated	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
MANBHUM DISTRICT— <i>contd.</i>											
Manbazar Leper Clinic . . .	DB	Leprosy	..	..	75-70	Rs. A. P.	1	..	..	..	..
Hura Leper Clinic . . .	DB	"	..	..	132-86	..	1	..	..	..	..
Gouri Leper Clinic, Pandra . .	DB	"	..	..	138-0	..	1	..	..	..	..
Purulia Sadr Hospital . . .	DB & MP	Infectious diseases.	8	0-34	..	30 2 6	1	..	..	..	..
SINGBHUM DISTRICT.											
Jamshedpur Tata Main Hospital.	P	Ear, Nose & Throat. Dentistry	..	..	14-24	..	1	..	..	..	..
		Leprosy	..	..	17-5	..	1*	..	..	..	..
		Infectious diseases.	24	0-48	21-6	..	..	..	..	..	..
					..	164 10 0†	1	..	..	..	..
Chakulia Dispensary . . .	DB	Leprosy	} Separate figures not available.								
Bhargora Dispensary . . .	DB	"									

\* Part time. Attends twice a week.

† Average cost for the whole hospital.

TABLE I. Province—CENTRAL PROVINCES AND BERAR.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
NAGPUR DISTRICT.															
(At Headquarters.)															
Mayo Hospital	G	General	222	230-22	415-13	Rs. A. P. 22 14 6	15	13	1	3	5	27	..	..	..
Daga Memorial Hospital	P	Women	80	61-54	93-21	53 7 10	3	..	1	1	2	6	2	14	..
Central Jail Hospital	G	General	90	4-68	20-96	30 9 0	3	..	..	..	..	..	..	..	4
Police Hospital	G	"	32	2-04	26-04	126 5 6	1	..	..	..	..	..	..	..	..
Mute Memorial Hospital	P	Women	130 + 30 cots.	104	42	42 4 0	3	..	..	2	8	36	..	1	..
WARDHA DISTRICT.															
(At Headquarters.)															
Main Hospital	MP	General	46	32-55	265-48	48 2 8	3	..	..	..	1	..	1	..	..

TABLE I—contd. Province—CENTRAL PROVINCES AND BERAR.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
CHANDA DISTRICT.							Rs. A. P.								
Main Hospital . . .	MP	General	32	20-46	211-12	51 12 9	2	.	.	.	.	.	.	.	.
CHINDWARA DISTRICT.															
(At Headquarters.)															
Main Hospital . . .	MP	General	20	19-30	173-22	35 14 0	3	.	.	.	.	.	1	.	.
Womens' Hospital . . .	P	Women	27	34-80	61-43	42 15 0	2	.	.	1	.	3	.	.	.
(Others.)															
Main Hospital, Seoni . . .	MP	General	30	14-96	178-78	52 12 0	3	.	.	.	.	.	1	.	.
Barkui Hospital . . .	P	"	30	18	57-4	79 7 0	2	.	.	.	.	1	.	.	.

BERUL DISTRICT.					
(At Headquarters.)					
Main Hospital . . .	MP	General	22	20-97	134-17
				41	6 8
				2	
SAUGOR DISTRICT.					
(At Headquarters.)					
Main Hospital . . .	MP	General	46	30-06	195-13
Dufferin Block of Main Hos- pital, Saugor.	P	Women	20	16-74	124-56
Police Hospital . . .	G	General	20	5-03	37-56
				19	0 0
				1	
HOSHANGABAD DISTRICT.					
(At Headquarters.)					
Main Hospital . . .	MP	General	27	30-93	168-88
				59	7 5
				2	
(Others.)					
Main Hospital, Narsinghpur	MP	"	34	16-24	93-78
Branch Hospital, Gadgarwara	MP	"	22	9-45	126-97
				84	7 7
				1	
NIMAR DISTRICT.					
(At Headquarters.)					
Main Hospital, Khandwa	MP	General	44	45-65	269-72
Lady Butler Hospital, Khandwa.	P	Women	30	32-55	103-45
Burhanpur Hospital . . .	MP	General	29	27-37	315-21

TABLE I—*contd.* Province—CENTRAL PROVINCES AND BERAR.

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num. average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
						Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.	
RAIPUR DISTRICT.						Rs. A. P.									
(At Headquarters.)	G	General	82	64.39	252	70 0 0	5	1	1	6	4	..	..	..	..
(Others.)															
Tilda Hospital	MN	"	66	48	11	70 0 0	2	..	1	1	11	1	..	..	4
Dhamtari Hospital	MN	"	35	18	27	75 0 0	2	..	1	2	..	..	..	..	..
Shantipur Leper Home	MN	"	28	20	12	40 0 0	1	..	..	3	..	..	..	..	..
DURG DISTRICT.															
(At Headquarters.)	MP	General	37	13	100	90 0 0	3	..	..	..	..	..	..	..	..
(Others.)															
Chandkhuri Leper Asylum	MN	"	590	588	15	40 0 0	2	..	1	1	12	..	..	..	12

## BILASPUR DISTRICT.

## (At Headquarters.)

Main Hospital	MP	General	44	27.94	168.50	55	9	1	4	1	..	..	..	1	..	..	..
Jackman Memorial Mission Hospital.	MN	Women	90	75.00	92.94	17	12	5	2	2	..	6	18	5	7	..	..

## (Others.)

Mission Hospital, Mungeli	MN	(General)	35	4.00	46.00	176	15	4	1	1	..	1	..	..	..	2	..
Mission Hospital, Champa	MN	"	24	18.12	39.50	160	7	11	4	2	1	5	..	..	..	6	..
Tuberculosis Sanatorium, Pendra Road.	MN	"	80	63.70	..	34	8	3	2	..	1	1	4	10	..	..	..

## BHANDARA DISTRICT.

## (At Headquarters.)

Main Hospital	MP	General	30	18.78	213.02	60	4	7	2	..	..	..	..	1	..	..	..
---------------	----	---------	----	-------	--------	----	---	---	---	----	----	----	----	---	----	----	----

## BALAGHAT DISTRICT.

## (At Headquarters.)

Main Hospital	MP	General	26	10.84	120.36	72	5	6	3	..	..	..	..	1	..	..	..
---------------	----	---------	----	-------	--------	----	---	---	---	----	----	----	----	---	----	----	----

## AMBIAOTI DISTRICT.

## (At Headquarters.)

Irwin Hospital	G	General	62	78.22	304.02	52	8	8	3	3	1	1	6	1	..	..	..
Dufferin Hospital	P	Women	21	32.55	84.43	35	4	0	2	..	1	1	..	3	6	..	..

TABLE I—*concl.* PROVINCE-CENTRAL PROVINCES AND BÉRAR.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 193

Categories—

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient- per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
AKOLA DISTRICT.							Rs. A. P.										
(At Headquarters.)																	
Main Hospital . . . .	MP	General	77	76-89	146-56	26 5 4	3	4	..	..	3	..	..	..	..	..	
Lady Hardinge Hospital . .	P	Women	35	57-75	104-41	29 14 4	3	..	1	..	6	11	..	..	..	..	
Jail Hospital . . . .	G	General	20	6-11	..	77 12 4	1	..	..	..	..	..	..	..	..	..	
(Others.)																	
Basim Hospital . . . .	MP	"	21	9-74	260-29	66 6 3	1	..	..	..	..	..	1	..	..	..	
YEOTMAL DISTRICT.																	
(At Headquarters.)																	
Main Hospital . . . .	MP	General	27	17-61	41-40	27 0 0	1	..	..	..	1	..	..	..	..	..	

## BULDANA DISTRICT.

(At Headquarters.)

Main Hospital . . .

MP

General

26

25.70

216.91

18 0 0

4

..

..

..

..

(Others.)

Women's Hospital, Shegaon .

P

Women

28

43.83

133.46

21 0 0

2

..

7

..

..

Jubilee Memorial Hospital,  
Khangaon.

P

"

26

25.34

101.40

107 0 0

2

1

5

..

..

## JUBBULPORE DISTRICT.

(At Headquarters.)

Victoria Hospital . . .

G

General

180

152.12

402.90

53 2 8

9

1

1

6

9

..

Police Hospital . . .

G

"

20

19.36

40.25

10 12 4

1

..

..

..

..

..

Infectious Diseases Hospital .

MP

"

20

0.16

..

874 6 0

1

..

1

..

..

..

Elgin Hospital . . .

P

Women

40

46.37

34.93

35 10 8

2

1

4

5

6

..

## MANDLA DISTRICT.

Main Hospital . . .

MP

General

20

11.63

193.12

74 8 0

3

..

..

..

..

..



TABLE II. PROVINCE—CENTRAL PROVINCES AND BÉRAR.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of hospitals and dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
NAGPUR DISTRICT.							Rs. A. P.								
Municipal . . . . .	9	8 General 1 Women	62	19.79	973.40	173 12 5	9	..	..	..	1	..	7	..	..
Mission . . . . .	1	General	1	0.30	2.30	10 13 4	..	1	..	..	..	..	1	..	..
WARDHA DISTRICT.															
Government . . . . .	1	Men	12	3.09	19.12	33 5 4	1	..	..	..	..	..	..	..	..
Municipal . . . . .	4	General	29	15.21	806.67	224 11 0	4	..	..	..	..	..	4	..	..
District Board . . . . .	3	"	4	3.91	326.78	217 0 5	3	..	..	..	..	..	..	..	..
CHANDA DISTRICT.															
Government . . . . .	2	General	18	7.04	39.71	47 2 2	1	..	..	..	..	..	..	..	..
District Board . . . . .	8	"	38	10.35	461.84	137 11 0	8	..	..	..	..	..	..	..	..



TABLE II—*contd.* PROVINCE—CENTRAL PROVINCES AND BERAR.

GENERAL HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of hospitals and dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
										Rs. A. P.								
NIMAR DISTRICT.																		
Government . . . .	1	General	15	9.10	17.78	18 6 0	1	..	..	..	..	..	..	..	..	..	..	..
District Board . . . .	4	"	17	8.73	306.32	102 0 0	4	..	..	..	..	..	..	..	..	..	..	..
RAIPUR DISTRICT.																		
District Board . . . .	8	General	46	29	459	133 8 0	8	..	..	..	..	..	..	..	..	..	..	..
Private . . . .	2	"	15	8	136	80 0 0	2	..	..	..	..	..	..	..	..	..	..	..
Missionary . . . .	2	"	17	17	24	35 0 0	1	..	..	..	..	2	..	..	..	..	..	..
Municipal . . . .	1	"	4	1.01	89	316 0 0	1	..	..	..	..	..	..	..	..	..	..	..

**Drug District.**

District Board

**BILASPUR DISTRICT.**

## Government

## Municipal

District Board

**Private**

**BEANDARA DISTRICT.**

## Government

## Municipal

District BoardBALAGHAT DISTRICT

**Government**

District Board.

**Private**

TABLE II—*concd.* Province—CENTRAL PROVINCES AND BERAR.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of hospitals and dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
AMBAOLI DISTRICT.																	
Government . . . . .	2	General	10	4-37	95-98	Rs. A. P. 119 9 8	2	..	..	..	..	..	..	..	..	..	..
Municipal . . . . .	8	"	68	40-39	1,327-50	76 8 11	10	..	..	..	..	..	2	..	..	..	..
District Board . . . . .	4	"	12	6-83	468-77	156 11 3	4	..	..	..	..	..	1	..	..	..	..
Private . . . . .	2	"	14	3-97	243-33	104 6 0	2	..	..	..	..	..	..	..	..	..	..
AKOLA DISTRICT.																	
Private . . . . .	1	General	6	4-69	33-97	44 2 5	1	..	..	..	..	1	1	..	..	..	..
District Board . . . . .	7	"	20	7-37	899-91	216 13 9	7	..	..	..	..	..	..	4	..	..	..
Municipal . . . . .	3	"	18	9-31	750-02	120 6 11	3	..	..	..	..	..	..	2	..	..	..



TABLE III. Province—CENTRAL PROVINCES AND BERAR.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
NAGPUR DISTRICT.					Rs. A. P.					
Government	4	2 General 2 Men	72.55	156 5 3	4	..	..	..	..	..
Municipal	7	General	1,583.59	338 3 3	7	..	..	6	..	..
District Board	3	"	253.20	152 14 0	3	..	..	..	..	..
Private	1	"	149.00	739 13 0	2	..	..	..	..	..
WARDHA DISTRICT.										
Government	1	General	7.88	426 12 0	1	..	..	..	..	..
Missionary	2	"	23.66	55 10 0	..	..	..	..	..	..
CHANDA DISTRICT.										
District Board	2	General	47.79	153 6 8	2	..	..	..	..	..
Private	1	"	13.00	44 9 4	1	..	..	..	..	..





TABLE III—*concd.* Province—CENTRAL PROVINCES AND BERAR.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
Dava District.									
Leprosy . . . . .	7	General	54	105 0 0	4	..	..	..	..
Private . . . . .	1	"	23	180 0 0	1	..	..	..	..
Bilaspur District.									
Missionary . . . . .	2	General	66	56 3 6	2	..	..	..	..
Leprosy . . . . .	1	"	46	582 3 6	2	..	..	..	..
Private . . . . .	3	"	151.27	261 6 8	3	..	..	..	..
Bhandara District.									
Private . . . . .	5	General	165.69	185 13 10	5	..	..	2	..
Balaghat District.									
Private . . . . .	3	General	32	99 1 9	3	..	..	..	..

## ANRAOT DISTRICT.

District Board . . . 3

290 0 0

3

..

..

..

## AKOLA DISTRICT.

Government . . . 1

361 7 8

1

..

..

..

District Board . . . 6

236 13 4

6

..

..

..

Municipal . . . 1

312 5 4

1

..

..

..

## YEOTMAL DISTRICT.

District Board . . . 3

170 0 0

3

..

..

..

Private . . . 1

91 2 4

1

..

..

..

## BULDANA DISTRICT.

District Board . . . 9

164 10 8

9

..

..

..

## JUBBULPORE DISTRICT.

Government . . . 2

42 9 5

..

..

..

..

Municipal . . . 3

299 10 0

4

..

2

..

District Board . . . 1

93 5 4

1

..

..

..

Private . . . 4

79 8 3

3

1

1

..

## MANDLA DISTRICT.

Private . . . 1

83 5 4

2

..

..

..



## NIMAR DISTRICT.

## Leprosy Clinics—

Main Hospital, Khandwa .

Burhanpur .

Shahpur .

Pandhara .

P 4

Leprosy

88-08

4

RAIPUR AND DRUG DISTRICT  
(Combined).

## I. Leprosy Clinics—

Singa .

Palari .

Kharora .

Kurud .

Dharsina .

Bhatapara .

Balodabazar .

Arang .

Drug .

Bhilai .

Nawagarh .

Gurur .

G 12

Leprosy

104

12

\* NOTE.—Except for Venereal Department nursing is done by the staff of the Hospital. No separate staff is maintained.

TABLE IV—*contd.* Province—CENTRAL PROVINCES AND BERAR.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
Leprosy Asylum—						Rs. A. P.					
Raipur . . . . .	MN 3	Leprosy	..	..	20	..	3	..	..	..	..
Bishrampur . . . . .											
Rajnandgaon . . . . .											
Dhantari . . . . .	MN 2	"	618	608	27	40 0 0	3	..	1	..	29
Chandkhuri . . . . .											
BILASPUR DISTRICT.											
Mungeli Mission Hospital . . . . .	MN	Ophthalmic.	35	1-07	3-25	0 8 0	2	..	..	..	3
Pendra Road Sanatorium . . . . .	MN	Tuberculosis.	115	0-45	..	38 0 0	2	..	1	1	16
Leprosy Asylum, Champa and Jahangson.	MN 2	Leprosy	24	615	85-5	5 0 0	2	..	1	2	11
Leprosy Clinics . . . . .	G 6	"	..	..	110-26	..	6	..	..	..	..



TABLE IV—*concl.* Province—CENTRAL PROVINCES AND BERAR.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.			Nursing Staff.		
							Stipendiary.	Honorary.		Matrons.	Sisters.	Nurses.
						Rs. A. P.						
BULDANA DISTRICT.												
Leprosy Clinic at the Main Hospital, Buldana.	MP	Leprosy	1	..	6-1*	..	..	..	..	..	..	..
JUBBULPORE DISTRICT.												
Victoria Hospital, Jubbulpore†	G	Ophthalmic.	27	1-06	12-76	..	..	..	..	..	..	..
		Veneral diseases.	..	0-37	3-55	..	..	..	..	..	..	..
		Ear, Nose & Throat.	..	0-03	12-23	..	..	..	..	..	..	..
		Dentistry	..	..	0-14	..	..	..	..	..	..	..
		Tuberculosis.	12	0-34	0-96	..	1	..	..	..	..	..
Infectious Diseases Hospital, Jubbulpore.	MP	Infectious diseases.	20	0-16	..	8 14 5	1	..	..	..	..	1*

† NOTE.—No separate staff is appointed for these Departments. Staff of Victoria Hospital attends.

\* Per treatment day, twice a week.

TABLE I.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 LB = Local Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
									Rs. A. P.									
CACHAR DISTRICT. (At Headquarters.)	LB	General	53	29-81	118-04	34 15 8	2	..	..	..	..	..	..	..	..	..	..	..
	G	Special	24	1-75	14-46	3 12 0	1	..	..	..	..	..	..	..	..	..	..	..
									(Others.)									
									Nil									
									SYLHET DISTRICT. (At Headquarters.)									
Sylhet Sadr Hospital	G	General	36	42-74	191-06	29 12 0*	2	..	..	..	..	..	..	..	..	..	..	..
Jail Hospital, Sylhet	G	Special	60	19-50	75-32	2 11 0	2	..	..	..	..	..	..	..	..	..	..	..



TABLE I—*contd.*

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

- G = Government.  
 MP = Municipal.  
 LB = Local Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
SYLHET DISTRICT— <i>contd.</i>						Rs. A. P.									
(Others.)															
Welsh Mission Hospital and Dispensary, Habiganj.	MN	General	24	10-00	20-00	42 0 0	1	..	1	..	..	4	1	..	..
KHASI AND JAINTIA HILLS DISTRICT.															
(At Headquarters.)															
Shillong Civil Hospital	G	General	26	23-06	110-97	83 10 6	4	..	..	2	..	..	..	..	..
Ganeshdas Red Cross Hospital for Women and Children, Shillong.	P	"	47	34-00	19-00	116 15 8	2	..	1	3	1	4	..	..	..
The Khasi Hills Welsh Mission Hospital, Shillong.	MN	"	120	101-00	50	46 13 0	3	..	1	2	17	32	17	7	..
(Others.)															
Jowai Mission Hospital	MN	"	46	38-05	25-06	18 6 7	2	..	1	..	1	9	..	..	..

## NAGA HILLS DISTRICT.

## (At Headquarters.)

Kohima Civil Hospital

G

General

50

50-51

54-43

26 5 0

2

..

..

..

..

..

..

..

## (Others.)

Mokokchung Civil Hospital

G

"

28

56-03

83-56

14 9 0

1

..

..

..

..

..

..

..

Wokha Civil Hospital

G

"

26

32-16

31-05

14 5 0

1

..

..

..

..

..

..

..

## LUSHAI HILLS DISTRICT.

## (At Headquarters.)

Aijal Civil Hospital

G

General

44

25-30

94-57

58 5 4

2

..

..

1

..

1

4

..

1st Assam Rifles Hospital,  
Aijal.

G

Special

25

0-63

19-05

0 5 0

1

..

..

..

..

..

..

..

## (Others.)

Lungleh Civil Hospital

G

General

22

11-52

52-23

43 13 10

1

..

..

1

..

..

..

..

Welsh Mission Hospital, Durt-  
lang.

MN

"

46

46-00

25-00

17 0 0

1

..

2

1

13

..

5

..

## GOALPARA DISTRICT.

## (At Headquarters.)

Dhufri Civil Hospital

LB

General

43

33-16

132-90

25 0 0

2

..

..

..

..

1

..

..

## (Others.)

Goalpara Civil Hospital

LB

"

20

7-67

101-34

48 3 0

2

..

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..

..

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..

..

TABLE I—*contd.*

Province—ASSAM.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

- G = Government.  
 MP = Municipal.  
 LB = Local Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
KAMRUP DISTRICT.							Rs. A. P.								
(At Headquarters.)															
Gauhati Civil Hospital	G	General	88	71-75	135-25	34 5 9	3	..	..	2	..	..	..	..	..
Women's and Children's Hos-pital, Gauhati.	MN	Women	45	30-00	20-00	57 8 0	2	1	..	2	8	26	..	..	..
(Others.)															
Barpeta Civil Hospital	LB	General	22	18-88	182-24	40 12 0	1	..	..	..	..	..	1	..	..
DARRANG DISTRICT.															
(At Headquarters.)															
Tezpur Civil Hospital	LB	"	41	33-06	85-07	1 12 0	2	..	..	..	..	..	1	..	..
(Others.)															

Nil

## NOWGONG DISTRICT.

(At Headquarters.)  
Earle Hospital, Nowgong  
(Others.)

LB	"	53	43-15	77-32	18 1 0	2	..	..	1	..	..	..	..
----	---	----	-------	-------	--------	---	----	----	---	----	----	----	----

## SIBSAGAR DISTRICT.

(At Headquarters.)

B. B. Civil Hospital, Jorhat.  
Jail Hospital, Jorhat.

(Others.)

Sibsagar Civil Hospital  
Golaghat Civil Hospital

Nil

LB	"	28	22-45	93-80	35 2 11	2	..	..	..	..	..	..	..
G	Special	21	13-30	4-44	9 0 0	1	..	..	..	..	..	..	..
LB	General	22	11-80	77-79	34 0 0	2	..	..	..	..	..	..	..
LB	"	23	17-51	77-27	36 1 5	2	..	..	..	..	..	..	..

## LAKHIMPUR DISTRICT.

(At Headquarters.)

Dibrugarh Civil Hospital

(Others.)

Digboi Assam Oil Company  
Hospital.

G	"	131	104-09	84-00	50 10 8	7	..	1	2	1	..	9	2
P	"	75	56-66	Nil	111 8 0	8	..	..	..	..	2	..	12

## GARO HILLS DISTRICT.

(At Headquarters.)

Tura Civil Hospital  
Kale-azar Hospital, Tura  
Mission Hospital and Dispensary, Tura.

(Others.)

G	"	23	13-23	57-70	52 1 0	2	..	..	..	..	1	..	..
G	"	50	18-00	Nil	18 13 0	1	..	..	..	..	..	..	..
MN	"	35	11-33	16-00	31 0 0	1	..	..	..	..	3	..	..

Nil

TABLE I—concl.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Categories—

G = Government.

MP = Municipal.

LB = Local Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
MANIPUR DISTRICT.						Rs. A. P.									
(At Headquarters.)															
Imphal Civil Hospital . . .	P	General	56	37.70	142.71	26 4 0	1	..	..	..	..	..	..	..	..
4th Assam Rifles Hospital, Imphal.	G	Special	64	8.12	60.74	70 2 8	1	..	..	..	..	..	..	..	..
(Others.)															
SADIYA FRONTIER TRACT.															
(At Headquarters.)															
Sadiya Civil Hospital . . .	G	General	29	18.58	31.12	32 1 4	1	..	..	..	..	..	1	..	..
2nd Assam Rifles Hospital, Sadiya.	G	Special	57	12.67	25.25	54 8 6	1	..	..	..	..	..	1	..	..
(Others.)															
Paighat Civil Hospital . . .	G	General	26	39.55	22.73	23 3 4	2	..	..	..	..	..	1	..	..

Nil.

TABLE II.

Province—ASSAM.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
CACHAR DISTRICT.	{ 1	General	26	0-03	8-50	23 15 6	2*	..	..	..	1	..	1	..	1
		Special						..	..	..	..	..	..	..	..
	1	General	14	12-52	127-92	47 14 0	1	..	..	..	..	..	1	..	..
SYLHET DISTRICT.	2	Special	26	5-22	31-72	100 7 6	2	..	..	..	..	..	..	..	..
		General	51	60-13	294-73	45 5 0	6*	..	..	..	1	..	..	6	..
	4								..	..	..	..	..	..	..
KHASI AND JALINTIA HILLS DISTRICT.	2	Special	17	8-02	11-60	61 12 0	1 (Part-time)	..	..	..	..	..	..	..	..
								..	..	..	..	..	..	..	..

\* 1 Part-time

TABLE II—*contd.*

Province—ASSAM.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
NAGA HILLS DISTRICT.															
Government . . . . .	5	General	16	30.81	108.74	40 10 0	5	..	..	..	..	..	..	..	..
Missionary . . . . .	1	"	15	1.52	147.34	37 8 6	1	..	..	..	..	..	..	..	..
LUSHAI HILLS DISTRICT.															
Government . . . . .	7	"	36	23.97	231.29	99 0 3	7	..	..	..	3	..	..	..	..
GOALPARA DISTRICT.															
Government . . . . .	1	Special	14	0.22	3.92	95 0 0	1	..	..	..	..	..	..	..	..
Private . . . . .	2	General	17	13.01	265.20	38 2 3-	4	..	..	..	..	..	1	..	..
KAMRUP DISTRICT.															
Government . . . . .	2	Special	22	9.23	21.53*	407 13 2	2	..	..	..	..	..	..	..	..





TABLE III.

Province—ASSAM.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
CACHAR DISTRICT.					Rs. A. P.					
Government	3	General	40-63	207 3 0	3	..	..	..	..	..
Local Board	11	"	579-50	284 4 9	21	..	..	1	..	..
SYLHET DISTRICT.										
Government	32	"	350-51	140 2 6	32	..	..	..	..	..
Municipal	1	"	61-49	271 0 0	1	..	..	..	..	..
Local Board	57	"	2,280-90	196 2 0	57	..	..	..	..	..
KARBI AND JAINTHIA HILLS DISTRICT.										
Government	7	"	214-63	216 10 8	7	..	..	..	..	..
NAGA HILLS DISTRICT.										
Government	1	"	14-93	186 0 0	1	..	..	..	..	..

## LUSEHAI HILLS DISTRICT.

Government . . . . . 2

24-53

172 10 4

2

## GOALPARA DISTRICT.

Government . . . . . 4

173-87

197 6 0

4

Private . . . . . 4

220-06

140 2 7

4

Local Board . . . . . 20

1,365-19

246 7 3

20

## KAMRUPT DISTRICT.

Government . . . . . 9

103-83

100 13 6

9

Local Board . . . . . 21

880-36

186 6 7

21

## DARRANG DISTRICT.

Government . . . . . 3

47-26

163 13 0

3

Local Board . . . . . 13

514-17

197 12 0

13

## NOWGONG DISTRICT.

Government . . . . . 10

90-67

161 13 9

10

Local Board . . . . . 12

563-84

220 5 0

12

TABLE III—*concd.*

Province—ASSAM.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.			
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.	
SIESAGAR DISTRICT.					Rs. A. P.					
Government	4	General	67.09	147 12 0	4	..	..	..	..	..
Local Board	12	"	464.78	198 11 9	12	..	..	..	..	..
Development Board	1	"	16.14	274 0 6	1	..	..	..	..	..
LAKHIMPUR DISTRICT.										
Local Board	10	"	372.06	238 4 0	10	..	..	1	..	..
GARO HILLS DISTRICT.										
Government	6	"	216.90	208 3 3	6	..	..	..	..	..
Missionary	1	"	3.40	77 0 0	1	..	..	..	..	..
SADIYA FRONTIER TRACT.										
Government	3	"	37.20	101 6 3	2	..	..	..	..	..
Local Fund	1	"	31.70	293 0 0	1	..	..	..	..	..

Categories—

G = Government.  
MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

TABLE IV.

SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
CACHAR DISTRICT.						Rs. A. P.					
Philanthropic Dispensary,* Silchar.	P	X-Ray	..	..	..	..	1	..	..	..	..
SYLHET DISTRICT.											
Leper Asylum, Sylhet	G	Leprosy	74	75-41	10-20	11 4 6	1	..	..	..	..
KHASI AND JAINTEA HILLS DISTRICT.											
Segregation Hospital, Shillong	MP	Infectious diseases.	32	0-04	..	9 0 0	1 part-time.	..	..	..	..
The Khasi Hills Welsh Mission Hospital, Shillong.†	MN	X-Ray & Radium.	No separate record is kept for X-Ray and Radium Department.				3	..	1	2	43

\* Only X-Ray plates taken. No screening is done.

† Medical staff for the entire hospital.

Province—ASSAM.

TABLE IV—*concd.*

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P. = Private.

MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
NAGA HILLS DISTRICT.						Rs. A. P.					
Leper Hospital, Kohima	G	Leprosy	8	21.78	..	3 14 1	1	..	..	..	1
GOALPARA DISTRICT.											
Leper Ward, Dhubri	MP	"	12	9.0	21.0	12 3 6	1 part-time.	..	..	..	..
Infectious Diseases Hospital at Dhubri.	MP	Infectious diseases.	25	14.60	4.20	19 0 0	1	..	..	..	..
KAMRUP DISTRICT.											
Leper Asylum, Gauhati	MP	Leprosy	34	16.43	25.46	25 4 7	1	..	..	..	..
Emigration Hospital, Gauhati	G	Infectious diseases.	38	6.07	1.30	72 5 4	1	..	..	..	..
Women's and Children's Hospital, Gauhati.	MN	X-Ray & Radium.	No separate record is kept for X-Ray and Radium.				..	..	..	..	..



Category—

G = Government.  
MP = Municipal.  
DB = District Board.  
P. = Private.  
MN = Missionary.

TABLE I.

Province—SIND.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
									Rs. A. P.								
KARACHI DISTRICT. (At Headquarters.)	G	General	182	228	450.6	86 4 0	10	7	1	9	11	25	..	..	..	..	
	P	Women	120	118	94	68 8 10	3	..	1	5	4	14	..	8	..	..	
	MP	"	30	29	208	41 15 2	2	..	..	..	..	..	2	..	..	..	
	MP	"	30	17	31	18 6 0	1	..	..	..	..	..	2	..	..	..	
HYDERABAD DISTRICT. (At Headquarters.)																	
Civil Hospital, Hyderabad	G	General	148	137.0	106.8	36 4 0	4	2	..	1	1	..	..	..	..	..	

Women's Hospital, Hyderabad.	P	Women	48-06	117-21	27	0	0	1	..	..	4	6	14
<b>SUKKUR DISTRICT.</b>													
(At Headquarters.)													
Civil Hospital, Sukkur.	G	General	40-6	41-1	70	2	11	4	..	..	3	..	..
Alexandra Mission Hospital, Sukkur.	MN	Women	25-0	43-5	19	0	0	1	..	..	..	3	..
Sobhraj Chetumal Maternity Home, Sukkur.	MP	"	27-3	94-2	46	14	4	1	..	..	4	1	7
<b>(Others.)</b>													
Victoria Jubilee Lady Dufferin Hospital, Shikarpur.	P	"	43-0	122-8	38	1	0	2	..	1	2	1	7
R. B. Udhavdas Tarachand Hospital, Shikarpur.	MP	General	54-6	197-8	46	13	2	4	..	1	3	..	..
<b>LARKANA DISTRICT.</b>													
(At Headquarters.)													
Civil Hospital, Larkana	G	"	32-8	127-3	60	12	9	3	1	..	..	..	..
Baker Mission Hospital, Larkana.	MN	Women	17-7	35-5	31	0	0	1	..	1	..	2	2



TABLE I—concd.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937:-

## Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.								
							Subsidiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
THAR PARKAR DISTRICT.																	
(At Headquarters.)																	
Civil Hospital, Mirpurkhas	G	General	24	49.9	161.7	Rs. A. P. 36 14 8	3	..	..	..	..	..	1	..	..	..	
(Others.)																	
Dispensary Umarkot	MP	"	20	2.7	80.4	182 2 6	1	..	..	..	..	..	..	..	..	..	
NAWABSHAH DISTRICT.																	
(At Headquarters.)																	
Nil																	
(Others.)																	
Tharushah Dispensary	DB	"	20	27.6	235.8	22 10 8	1	..	..	..	..	..	..	..	..	..	
UPPER SIND FRONTIER, JACOBABAD DISTRICT.																	
(At Headquarters.)																	
Civil Hospital, Jacobabad	G	"	30	1.5	35.5	52 13 0	2	..	..	..	..	..	..	..	..	..	

• TABLE II.

Province—SIND.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Superintendy.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						Rs. A. P.									
KARACHI DISTRICT.															
Government . . . .	1	General	4	0.51	57.26	642 5 0	1	.	.	.	.	.	.	.	.
Municipal . . . .	3	"	40	23.5	221.2	50 12 11	4 (2 part-time).	.	.	.	.	.	3	.	.
District Board . . .	10	"	44	22.19	848.11	217 3 4	10	.	.	.	.	.	8	.	.
HYDERABAD DISTRICT.															
Municipal . . . .	4	"	22	8.3	274.4	23 15 0	4	.	.	.	.	.	.	.	.
District Board . . .	2	"	11	7.87	145.95	123 13 6	2	.	.	.	.	.	1	.	.

TABLE II—concl'd.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.									
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.			
<b>SUKKUR DISTRICT.</b>																		
Government . . . .	1	General	9	1.3	61.8	286 12 0	1	..	..	..	..	..	..	..	..	..	..	..
Municipal . . . .	4	"	26	8.9	354.5	227 8 0	4	1 (Lady den-tist.)	..	..	..	..	..	..	..	..	..	..
District Board . . . .	3	"	18	22.1	314.2	71 0 0	3	..	..	2	1	..	..	..	..	..	..	..
Private . . . .	1	Women	18	9	24	65 5 0	1	..	..	1	..	..	..	..	..	..	..	..
<b>LARKANA DISTRICT.</b>																		
Municipal . . . .	2	General	14	11.8	318.1	96 1 10	2	..	..	..	..	..	..	..	..	..	..	..
District Board . . . .	9	"	62	12.10	365.9	73 12 0	9	..	..	..	..	..	..	..	..	..	..	..





## LARKANA DISTRICT.

....

## THAR PARKAR DISTRICT.

....

## NAWABSHAH DISTRICT.

District Board . . . . . 2

General

169.1

212 9 3

2

## UPPER SIND FRONTIER TRACT.

....

## DADU DISTRICT.

Municipal . . . . . 1

General

32.6

249 0 0

1

District Board . . . . . 1

"

85

203 0 0

1

TABLE IV.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

G = Government.

M. = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in- patients.	Daily average number of out- patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipen- diary.	Honorary.	Matrons.	Sisters.	Nurses.
KARACHI DISTRICT.											
Dr. Spencer Eye Hospital, Karachi.	MP	Ophthal- mic.	35	32.1	336	60 4 9	2	..	..	3	..
Shewakrau Ramrakhlomal Dispensary.	MP	Tuber- culosis.	..	..	298.3	..	1	..	..	3	..
Hiranand Leper Hospital, Mangho Pir, Karachi.	P	Leprosy	100	98.7	16.3	76 3 0	1	..	..	..	..
Epidemic Diseases Hospital, Karachi.	MP	Infectious diseases.	60	17.25	..	125 0 0	1	..	..	1	3
HYDERABAD DISTRICT.											
K. T. Tuberculosis Dispensary, Hyderabad.	MP	Tuber- culosis.	..	..	35	..	1	..	..	..	..
Sir C. J. Mental Hospital, Hyderabad, Sind.	G	Mental	248	238.9	..	13 4 11	2	..	..	..	..

TABLE I.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
CUTTACK DISTRICT.															
(At Headquarters.)															
General Hospital	G	General	227	202.75	180.37	Rs. A. P. 41 0 0	13	..	1	4	2	6	4	7	..
Police Hospital	G	Men	22	7	9.9	40 4 0	1	..	..	..	..	..	..	..	..
(Others.)															
Angul Hospital	G	General	26	16.72	85.25	46 13 4	1	..	..	..	..	..	1	..	..
PURI DISTRICT.															
(At Headquarters.)															
Wagm Hospital	MP	"	92	57.72	111.98	46 11 0	3	..	..	..	1	..	4	3	2
Cholera Hospital	P	"	106	3.3	..	141 7 0	1	..	..	..	..	..	1	..	..
(Others.)															
Khurda Hospital	DB	"	25	15.37	78.48	26 11 2	1	..	..	..	..	..	1	..	..



TABLE I—*concd.*

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
BALASORE DISTRICT. (At Headquarters.)						Rs. A. P.									
Sadr Hospital, Balasore	MP	General	55	31-95	31-72	50 8 0	3	..	..	1	..	4	4	4	..
(Others.)															
Bhadrak Hospital	DB	"	26	21-43	88-66	18 11 0	1	1	..	..	1	..	..	..	..
SAMBALPUR DISTRICT. (At Headquarters.)															
Sadr Hospital, Sambalpur	MP	"	34	31-07	189-47	38 2 0	3	1	..	1	..	4	4	4	..
Police Hospital	G	Men	24	4-62	4-29	52 13 0	1	..	..	..	..	..	..	..	..

(Others.)

Nil.

## GANJAM DISTRICT.

(As Headquarters.)

Government Headquarters  
Hospital, Berhampur.

G

General

60

79-15 246

34 13 0

4

2

..

..

3

..

1

..

Baptist Mission Hospital

MN

Women

82

73

100

22 7 0

3

..

1

1

7

15

5

4

(Others.)

Chatrapur Hospital

G

General

24

19-66

164-72

47 1 0

2

..

..

..

..

..

1

..

Phulbani Hospital

G

"

22

16-05

57-80

22 6 0

1

..

..

..

..

..

1

..

## KORAPUT DISTRICT.

Nil.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.											
							Superintend-ary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.					
CUTTACK DISTRICT.																				
Government . . . . .	3	General	28	4.61	52.98	Rs. A. P. 70 3 0	3	.	.	.	.	.	.	.	.	.	.	.	.	
Municipal . . . . .	2	"	36	9.18	59.34	42 13 6	2	.	.	.	.	.	.	.	.	.	.	.	.	
District Board . . . . .	5	"	31	2.69	49.67	112 4 0	5	.	.	.	.	.	.	.	.	.	.	.	.	
PURI DISTRICT.																				
Government . . . . .	2	1 General 1 Men	28	5.31	50.21	69 0 0	2	.	.	.	.	.	.	.	.	.	.	.	.	
District Board . . . . .	6	General	46	2.42	55.34	196 13 0	6	.	.	.	.	.	.	.	.	.	.	.	.	



TABLE III.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
				Rs. A. P.					
<b>CUTTACK DISTRICT.</b>									
Government . . . .	4	General	29.61	169 4 9	4	..	..	..	..
Municipal . . . .	1	"	125.26	353 0 0	1	..	..	1	..
District Board . . . .	15	"	35.27	229 3 9	15	..	..	..	..
Private . . . .	4	"	38.66	144 3 3	4	..	..	1	1
<b>PURI DISTRICT.</b>									
Municipal . . . .	1	"	89.65	357 15 0	1	..	1	..	..
District Board . . . .	9	"	41.02	221 11 0	9	..	..	..	..









TABLE IV—*contd.*

## SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

• MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
PURI DISTRICT—contd.											
Dising . . . . .	DB	Leprosy	..	..	6.73	Rs. A. P.	1	..	..	..	..
Begunia . . . . .	DB	"	..	..	19.8	..	1	..	..	..	..
Khurda . . . . .	DB	"	..	..	12.23	..	1	..	..	..	..
Pangi . . . . .	DB	"	..	..	10.8	..	1	..	..	..	..
Bhubaneswar . . . . .	DB	"	..	..	2.7	..	1	..	..	..	..
Leper Colony, Puri . . . . .	P	"	71	71	..	7 14 0	1	..	..	..	..
Khokra Hospital . . . . .	P	Infectious diseases.	106	3.30	..	141 7 0	1	..	..	..	1
BALASORE DISTRICT.											
Madra Hospital . . . . .	DB	Veneral diseases. Tuberculosis. Leprosy Infectious diseases.	5	6.18	0.86	50 8 0	3	..	..	..	1
			1	0.03	0.11	50 8 0	2	..	..	..	1
	MP		..	..	0.17	..	3	..	..	..	1
	DB		4	0.15	0.02	50 8 0	3	..	..	..	1



TABLE IV—*concd.*

SPECIAL HOSPITALS AND CLINICS.

*Table showing particulars of work and medical staff for 1937.*

Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
GANJAM DISTRICT. Government Headquarters Hospital, Berhampore.	G					Rs. A. P.					
		Ophthalmic.	Not fixed.	3	14.0	34 13 0	3	..	..	2	1
		Veneral diseases.	"	6	34.0	34 13 0	2	..	..	2	1
		Ear, Nose & Throat.	"	3	30.0	34 13 0	1	..	..	2	1
		Dentistry	"	1	9.0	34 13 0	2	..	..	2	1
		Tuberculosis.	"	..	2.0	34 13 0	..	..	..	2	1
		Leprosy	..	..	41.6	..	3	..	..	..	..
		Infectious diseases.	6	2	2.0	34 13 0	2	..	..	2	1
		Mental	2	0.65	..	34 13 0	..	1	..	..	..
		X-Ray	..	0.48	0.18	1 10 8	1	..	..	..	..



G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary

TABLE I.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Province—DELHI.

Table showing particulars of work and medical and nursing staffs for 1937.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
DELHI DISTRICT. (At Headquarters.)						Rs. A. P.									
Irwin Hospital, New Delhi.	G	General	320	180	250-53	131 0 0	20	4	1	6	20	20	..	..	2
Hindu Rao Hospital, Old Delhi.	G	"	20	6	..	012 15 0	1	..	1	5 (in sum-mer.) 7 (in winter.)	..	..	..	..	..
Balak Ram Hospital, Old Delhi.	G	"	24	7	74-67	184 2 0	1	..	..	..	..	..	..	..	..
Police Hospital, Old Delhi.	G	Men	36	20	78-57	54 13 0	2	..	..	..	..	..	..	..	..
Civil Hospital, Old Delhi.	MP	General	60	57	604-20	79 1 0	4	1	..	..	7	..	..	..	..
Willington Hospital, New Delhi.	MP	"	30	28	353-07	222 0 0	3	..	1	..	4	..	..	..	..
Lady Hardinge Medical College and Hospital for Women, New Delhi.	P	Women	322	249	169	89 7 0	18	..	1	8	19	63	..	3	..
Victoria Zenana Hospital, Delhi.	P	"	100	121	232-6	37 5 0	5	..	1	2	10	11	..	8	..
St. Stephen's Mission Hos-pital, Delhi.	MN	"	140	107	119-2	50 15 0	4	..	1	3	4	40	9	..	..

TABLE II.

Province—DELHI.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	No. of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Superintendy.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
DELHI DISTRICT.															
District Board	5	General	30	6-80	758-80	Rs. A. P. 953 4 0	5								

## Province—DELHI.

TABLE III.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
DELHI DISTRICT.									
Municipal . . . . .	9	1 Women 8 General	2,741.40	Rs. A. P. 531 12 0	9	2	1	..	
Private . . . . .	1	General	77	140 0 0	..	1	2	..	

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

TABLE IV.

Province—DELHI.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds, if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
DELHI DISTRICT. Shroff's Charity Eye Hospital, Delhi.	P	Ophthalmic.	76	91	189	Rs. A. P. 31 15 0	4	1	1	..	..
Venereal Dispensary, Delhi	MP	Veneral Diseases.	..	..	161	..	1	2	..	..	..
Irwin Hospital New Delhi	G	Ophthalmic and Ear, Nose & Throat.	62	39-20	159	Separate account not kept.	4	3	..	1	2
Lady Hardinge Hospital, New Delhi.	P	Dentistry	..	..	8	Do.	..	1	..	..	1
		Ophthalmic and Ear, Nose & Throat.	39	..	38	Do.	2	..	..	..	1
Silver Jubilee Tuberculosis Hospital, Delhi.	MP	Tubercu-losis.	68	59	..	150 0 0	3	4	1	4	4
Tuberculosis Clinic, Delhi	MP	"	..	..	92	..	2 (Part-time.)	..	..	..	1
Isolation Hospital, Delhi	MP	Infectious Diseases.	28	20	..	28 0 0	2 (1 Part-time.)	..	..	..	..
Lady Hardinge Medical College and Hospital, New Delhi.	P	X-Ray & Radium.	..	..	3-43	No separate account kept.	2 (1 Part-time.)	..	..	..	..
Silver Jubilee Tuberculosis Hospital, Delhi.	MP	"	..	..	Figures not available.	..	..	1	..	..	..
Civil Hospital, Delhi	MP	Leprosy	..	..	10	..	1	..	..	..	..



TABLE I.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1935.

Categories—

G = Government.

MP = Municipal.

DB = District Board.

P = Private.

MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.								
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.		
PESHAWAR DISTRICT.																	
(At Headquarters.)							Rs. A. P.										
ady Reading Hospital, Peshawar.	G	General	218	284.73	846.60	47 12 9	8	..	1	2	11	..	..	..	..	23	
enana Hospital, Peshawar	MP	Women	52	67.77	172.24	40 12 0	3	..	1	..	7	3	..	..	..	..	
ission Hospital, Peshawar .	MN	General	113	58.12	120.75	54 13 0	2	..	1	1	..	..	..	..	..	20	
• (Others.) •																	
ivil Hospital, Charsadda .	DB	"	21	17.80	186.08	47 13 0	1	..	..	..	..	..	..	..	..	..	
ivil Hospital, Newsheera .	DB	"	20	14.24	230.97	42 2 8	2	..	..	..	..	..	..	..	..	..	
HAZARA DISTRICT.																	
(At Headquarters.)																	
ivil Hospital, Abbottabad .	MP	"	27	23.40	168.81	43 9 0	2	..	..	..	..	..	..	..	..	..	



TABLE I—concd.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Mat-ron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
BANNU DISTRICT. (At Headquarters.)						Rs. A. P.										
Civil Hospital, Bannu	MP	General	96	101.49	463.62	21 11 3	4	1	1	..	5	..	..	..	..	8
C. M. S. Hospital, Bannu	MN	"	120	47.77	83.86	42 0 0	3	1	1	..	5	..	..	..	..	8
(Others.)																
Civil Hospital, Lakki	DB	"	22	13.63	133.00	34 13 10	1	..	..	..	..	..	..	..	..	..
D. I. KHAN DISTRICT. (At Headquarters.)																
Civil Hospital, D. I. Khan	MP	General	46	39.08	170.94	42 2 1	2	..	..	..	3	..	..	..	..	5
Zenana Hospital, D. I. Khan	MP	Women	26	40.97	96.10	34 5 10	2	..	1	..	3	..	..	..	..	..
Mission Hospital, D. I. Khan	MN	General	56	14.45	53.45	56 8 0	2	..	1	..	2	2	..	..	..	5







## Province—N. W. F. PROVINCE.

TABLE III.

## HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

Table showing particulars of work and medical and nursing staffs for 1937—contd.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
PESHAWAR DISTRICT.									
Government	4	General	289.57	Rs. A. P. 149 6 8	3	..	..	..	..
Municipal	2	"	625.53	389 0 0	2	..	..	..	..
Private	2	"	102.45	141 0 0	2	..	..	..	..
HAZARA DISTRICT.									
Government	4	"	255.09	173 7 5	2	..	..	..	..
District Board	1	"	6.33	60 0 0	1	..	..	..	..
Missionary	1	"	13.16	149 0 0	..	..	..	..	1
MARDAN DISTRICT.									
Government	4	"	95.47	51 4 0	4	..	..	..	..
District Board	1	"	74.27	94 10 8	1	..	..	..	..





TABLE IV.

## SPECIAL HOSPITALS AND CLINICS.

Table showing particulars of work and medical staff for 1937.

## Categories—

- G = Government.  
 MR = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of the hospital or clinic and the place where situated.	Category to which the Institution belongs.	Special diseases treated.	No. of beds if any.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.		
							Stipendiary.	Honorary.	Matrons.	Sisters.	Nurses.
PESHAWAR DISTRICT.  Lady Reading Hospital, Peshawar.	G	Ophthalmic and Ear, Nose & Throat Dept.	16	15-19	228-60	No separate account is kept and no separate staff is sanctioned for these clinics.					
		Veneral Diseases.	6	9-70	20-1						
		Leprosy	..	0-2	1-06						
		Infectious Diseases.	6	8-28	11-30						
		Tuberculosis.	44	37-34	61-4						
HAZARA DISTRICT.  Sindwani Sanatorium	P	"	20	15-00	..	25 9 7	1	..	..	..	1 (Male.)

No separate account is kept and no separate staff is sanctioned for these clinics.

## TABLE I.

MP = Municipal.  
DB = District Board.  
P = Private.  
MN = Missionary.

**MN = Missionary.**

Name of Hospital or Dispensary.	Category.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
QUETTA-PISHIN DISTRICT. (At Headquarters.)						Rs. A. P.									
Civil Hospital, Quetta . . . . .	G	General	100	51-77	261-47	125 3 9	8	..	..	1	2	..	1	1	22
(Others.)															
Civil Hospital, Chaman . . . . .	G	"	27	13-20	131-64	50 4 5	1	..	..	..	..	..	1	..	3
SIBI DISTRICT. (At Headquarters.)															
Civil Hospital, Sibi . . . . .	G	General	32	17-15	123-22	71 1 0	3	..	..	..	..	..	..	..	..
(Others.) .....	..	..	..	..	..	..	..	....	..	..	..	..	..	..	..





## Province—BALUCHISTAN.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
						R. A. P.									
Information not available.															
QUETTA-PISHIN DISTRICT.															
Government	3	General	21	14.10	232.56	229 6 1	3	..	..	..	..	..	2	..	4
Private	1														
Missionary	2														
SATA DISTRICT.															
Government	7	General	51	23.33	421.08	893 14 0	7	..	..	..	..	..	..	..	..
Private	1	Women	12	4.33	37.23	89 14 8	1	..	..	..	..	..	..	..	..
LOBALAI DISTRICT.															
Government	4	General	26	11.70	205.32	304 7 3	4	..	..	..	..	..	..	..	..
Government	1	Women	10	8.85	40.12	42 4 8	1	..	..	..	1	..	..	..	..

## ZHOV DISTRICT.

Government	Private
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99	99
100	100

● MEKRAV DISTRICT.

<b>Government</b>	<b>Private •</b>
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**KALAT DISTRICT.**

## Government

**YPSHI DISTRICT.**

**Government**

LASBELA STATE.

• **Private**

## Province—BALUCHISTAN.

TABLE III.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
QUETTA-PISHIN DISTRICT.				Rs. A. P.					
Government . . . .	1	General	2436	138 2 5	..	..	..	..	..

There are no special hospitals or clinics.

## Province—AJMER-MERWARA.

TABLE I.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

categories—  
 G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
AJMER.						Rs. A. P.										
(At Headquarters.)																
Victoria Hospital, Ajmer	G	General	130	115.61	349.06	65 5 0	7	..	1	2	9	2	3	..	15	1
Police Hospital, Ajmer	G	Men	31	14.98	16.31	18 10 0	1	..	..	..	..	..	..	..	..	..
(Others.)																
Charitable Hospital, Beawar	G	General	26	26.53	367.39	19 8 0	3	..	..	..	1	..	..	..	1	..



## Province—AJMER-MERWARA.

TABLE II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
AJMER.						Rs. A. P.									
Government . . . . .	5	General	57	2458	35334	61 10 0	5	:	:	:	12	:	1	:	



TABLE I.

## HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

- G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
Coorg. (At Headquarters.)															
Civil Hospital, Mercara	G	General	95	93-88	211-91	Rs. A. P. 48 7 4	5	2	1	..	4	..	..	..	..
(Others.)															
Civil Hospital, Virajpet	G	"	65	88-35.	313-86	25 12 6	4	1	..	..	4	..	..	..	..

Province—COORG.

TABLE.II.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1935.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Number of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probationers.	Midwives.	Pupil midwives.	Male Nurses.
Coorg District.						Rs. A. P.									
District Board	1	General	14	1488	16894	39 7 9	1						1		

## Province—COORG

TABLE III.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

*Table showing particulars of work and medical and nursing staffs for 1937.*

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses
COORG. District Board . . . . .	8	General	895.54	Rs. A. P. 313 14 10	8	..	..	6	..

There are no special hospitals or clinics.

## Province—CENTRAL INDIA AGENCY.

TABLE I.

HOSPITALS AND DISPENSARIES WITH 20 BEDS OR OVER.

Table showing particulars of work and medical and nursing staffs for 1937.

## Categories—

G = Government.  
 MP = Municipal.  
 DB = District Board.  
 P = Private.  
 MN = Missionary.

Name of Hospital or Dispensary.	Category.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.						
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.
INDORE RESIDENCY.						Rs. A. P.									
(At Headquarters.)															
Malwa Bhil Corps Hospital	G	General	32	11-57	60	29 2 4	2	1	1	15	15	12	12	12	12
King Edward Hospital	P	"	238	234-21	244-7	35 5 5	14	2	1	1	15	15	12	12	12
(Others.)															
Civil Hospital, Nowgong	P	"	98	57-33	199-64	38 0 6	3	1	1	1	15	15	12	12	12
Chanderman Board Hospital, Mhow.	MP	"	25	23-10	215-99	17 13 3	2	1	1	1	15	15	12	12	12

TABLE II.

Province--CENTRAL INDIA AGENCY.

HOSPITALS AND DISPENSARIES WITH LESS THAN 20 BEDS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category of Hospital or Dispensary.	Number of Hospitals and Dispensaries.	For men, women or general.	Num-ber of beds.	Daily average number of in-patients.	Daily average number of out-patients.	Average cost per in-patient per month.	Medical Staff.		Nursing Staff.							
							Stipendiary.	Honorary.	Matron.	Asst. Matron and Sisters.	Staff Nurses.	Probation-ers.	Midwives.	Pupil mid-wives.	Male Nurses.	
CENTRAL INDIA AGENCY.							Rs. A. P.									
Government	3	General	32	11-33	106-17	483 12 3	5									
Municipal	1	"	12	1-65	107	49 8 0	1									
Private	1	"	8	8-13	2	87 5 4		1			1					
	1	Women	10	3-5	..	60 0 0		3								
	1	Men	8	0-49	18	768 11 4	1									

• TABLE III.

Province—CENTRAL-INDIA AGENCY.

HOSPITALS AND DISPENSARIES WITHOUT ACCOMMODATION FOR IN-PATIENTS.

Table showing particulars of work and medical and nursing staffs for 1937.

Category.	Number.	For men, women or general.	Daily average number of patients.	Average cost per dispensary per month.	Medical Staff.		Nursing Staff.		
					Stipendiary.	Honorary.	Nurses.	Midwives.	Male Nurses.
DISTRICT (NAME)				Rs. & P.					
Government	} Nil.		•					•	
Municipal						•			
District Board					•				
Private									
Missionary									
			•				•		
								•	
			•						

There are no special hospitals or clinics.





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**APPENDIX II.**  
**STATISTICS REGARDING MISSION MEDICAL INSTITUTIONS IN**  
**INDIA.**

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## MISSION MEDICAL INSTITUTIONS IN INDIA.

## Women's, Children's and General Hospitals.

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENTS.				FINANCIAL.				DOCTORS.	
						Individuals treated.	Total Treatments.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Current Expenses.	Foreign.	National.	
										Government.	Municipal.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
ASSAM.															
Chaubua, St. Luke's Hospital	Dio. of A.	General	47	707	12,811	2,206	6,002	..	Rs. 11,983	Rs. 540	..	Rs. 20,970	2	..	
Durtlang, Welsh Mission Hospital.	W. C. M. M.	"	45	700	..	8,500	..	Tours	500	..	..	14,686	1	1	
Gauhati, Women's and Children's Hospital.	A. B. F. M. S.	Women and Children.	45	707	..	4,847	..	..	13,370	..	..	15,602	1	1	
Jorhat, Christian Hospital.	A. B. F. M. S.	General	33	525	..	7,550	..	Tours	..	..	..	24,000	2	..	
Jowai, Welsh Mission Hospital	W. C. M. M.	"	40	736	..	6,025	10,155	Lectures	..	1,500	..	..	..	1	
Shillong, Khasi Hills Welsh Mission Hospital.	W. C. M. M.	"	120	2,000	..	5,000	12,000	..	..	..	..	..	1	2	
BALUCHISTAN.															
Quetta, Mission Hospital	C. M. S.	"	124	3,837	..	33,178	85,754	Dis- pensaries.	..	..	..	36,522	2	2	
BENGAL.															
Chandpur, Hospital	N. Z. B. M.	Women and Children.	30	386	..	11,908	..	..	2,322	..	..	10,000	1	1	
Chandraghona, Arthington Hospital.	B. M. S.	General	70	1,223	..	12,027	13,113	..	20,123	..	..	44,301	2	1	
Doyabari, Banaghat Mission Hospital.	C. M. S.	Men and Women.	120	2,016	..	..	50,858	..	24,520	600	..	54,839	2	1	

Kallimpong, Charteris Hospital .	C. of S. M.	134	3,155	..	7,056	11,793	..	6,362	8,715	..	39,132	2	2
Kalna, Mission Hospital .	C. of S. M.	75	980	..	10,652	22,477	..	12,227	2,350	..	28,560	1	1
Krishnagar, Mission Hospital .	C. E. Z. M. S.	72	701	..	3,558	6,688	Tours	..	..	..	..	1	1
Rajahm, Mission Hospital .	E. P. M.	24	128	..	15,384	25,910	Lectures	3,718	..	..	8,390	..	2
Ratnapur, Women's Hospital .	C. E. Z. M. S.	68	972	..	15,184	31,650	Tours	5,591	..	260	16,824	1	1
Sarenga, Santal Mission Hospital	M. M. S.	50	1,085	12,279	6,859	14,508	..	4,071	1,159	..	18,802	2	1
BIHAR.													
Bandah, Mission Hospital .	C. of S. M.	100	3,054	27,600	4,904	..	Tours	8,945	400	..	15,211	1	..
Benaresia, Christian Hospital .	S. M. N. C.	65	570	..	7,360	16,041	..	2,447	..	..	15,717	1	1
Hazariabagh, St. Columbas Hos- pital.	S. P. G.	70	..	..	..	..	..	..	..	..	..	1	1
Kandara, Hospital of the Epi- scopacy.	S. P. G.	20	351	3,139	..	2,222	..	376	..	480	9,074	1	..
Hiranpur, Mission Hospital .	C. M. S.	40	600	..	13,000	..	..	3,241	..	..	11,541	1	1
Manoharpur, St. Francis Hospital	S. P. G.	11	341	..	4,492	12,902	..	526	..	..	2,028	..	..
Murhu, St. Luke's Hospital .	S. P. G.	24	189	2,555	3,965	13,224	..	306	250	..	3,650	1	..
Patna, Duchess of Teck Hospital	Z. B. M. M.	60	1,827	27,840	9,154	42,137	..	16,560	..	..	31,142	2	1
Ranchi, St. Barnabas Hospital .	G. E. L. C.	27	667	14,007	15,091	38,236	..	7,181	300	..	17,925	2	1
Raxaul, Mission Hospital .	R. B. M. C.	27	533	6,424	5,135	13,363	..	3,698	..	..	6,528	1	..
Tibri, Mission Hospital .	C. of S. M.	24	367	..	5,825	7,000	..	1,150	..	..	1,500	1	..
BOMBAY PRESIDENCY.													
Anand, Emery Hospital .	S. A.	120	3,563	..	20,037	42,782	..	1,28,300	..	..	1,06,400	2	1
Anand, Mission Hospital .	I. P. M.	70	606	..	5,055	17,019	..	..	..	..	21,000	1	1

MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*Women's, Children's and General Hospitals—*contd.*

Location and Name of Institution.	Control.	Type of Service.	Nurses.			Qualified Midwives.	Qualified Compounders.	Qualified Laboratory Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>ASSAM—<i>contd.</i></b>																	
Chaubua, St. Luke's Hospital.	Dio. of A.	General	2	2	4	..	..	..	..	..	..	..	272	..	10	47	..
Durtlang, Welsh Mission Hospital.	W. C. M. M.	"	2	..	12	..	1	1	..	2	..	1	6	30	104	15	..
Gauhati, Women's and Children's Hospital.	A. B. F. M. S.	Women and Children.	2	1	30	..	1	..	..	..	..	..	60	99	..	..	..
Forbat, Christian Hospital.	A. B. F. M. S.	General	1	1	15	..	..	..	..	..	..	..	50	284	..	..	48
Jowai, Welsh Mission Hospital.	W. C. M. M.	"	1	2	10	..	..	..	..	5	..	..	8	165	..	..	72
Shillong, Khadi Hills Welsh Mission Hospital.	W. C. M. M.	"	2	14	36	..	..	..	X-Ray	4	..	..	300	1,500	150	50	..
<b>BALUCHISTAN—<i>contd.</i></b>																	
Quetta, Mission Hospital.	C. M. S.	"	2	13	4	..	1	..	X-Ray	..	2	..	3,762	3,091	..	..	..
<b>BENGAL—<i>contd.</i></b>																	
Chandpur, Hospital.	N. Z. B. M.	Women and Children.	1	2	9	..	..	..	..	..	..	..	31	90	34	4	..
Chandraghona, Hospital.	B. M. S.	General	3	2	17	..	..	..	..	..	..	..	422	271	..	..	35
Doyabari, Rangbat Mission Hospital.	C. M. S.	Men and Women.	3	3	12	..	2	1	..	..	3	..	262	1,249	..	..	123

Kalimpong, Charter's Hospital .	C. of S. M.	3	4	12	..	..	..	..	..	..	99	538	..	..	63
Kalida, Mission Hospital .	C. of S. M.	2	1	9	..	2	..	..	..	..	141	431	25	5	..
Krishnagar, Mission Hospital .	C. E. Z. M. S.	1	7	5	..	1	..	1	..	..	124	109	221	67	..
Rajshahi, Mission Hospital .	E. P. M.	..	3	..	..	2	..	..	..	..	31	263	..	..	573
Ratanpur, Women's Hospital .	C. E. Z. M. S.	1	4	9	2	7	..	3	..	..	256	903	127	80	..
Sarenga, Santal Mission Hospital	M. M. S.	2	1	8	..	3	1	..	..	..	34	210	85	10	..
BIHAR—contd.															
Bandah, Mission Hospital .	C. of S. M.	..	11	..	..	..	..	4	..	..	96	5,825	4	2	..
Benagaria, Christian Hospital .	S. M. N. C.	2	15	..	..	..	..	..	..	..	117	627	35	10	..
Hazratnagar, St. Columbas Hos- pital.	S. P. G.	3	1	..	..	..	..	..	..	..	..	..	..	..	..
Kandara, Hospital of the Epi- phany.	S. P. G.	1	1	..	..	2	..	..	..	..	200	40	13	15	..
Hiranpur, Mission Hospital .	C. M. S.	1	..	..	..	..	..	..	..	..	266	1,849	..	..	20
Manoharpur, St. Francis Hospital	S. P. G.	1	1	1	..	1	..	..	..	..	..	78	20	12	..
Murhu, St. Luke's Hospital .	S. P. G.	1	1	1	..	1	..	..	..	..	66	205	23	16	..
Patna, Duchess of Teck Hospital	Z. B. M. M.	2	2	14	..	1	..	7	2	..	214	446	343	158	..
Ranchi, St. Barnabas Hospital .	G. E. I. C.	2	2	3	..	1	..	..	..	..	243	334	..	..	..
Paxaul, Mission Hospital .	R. B. M. U.	2	..	4	..	1	..	..	..	..	40	153	5	18	..
Tilari, Mission Hospital .	C. of S. M.	..	..	..	..	4	..	..	..	..	14	525	1	..	..
BOMBAY PRESIDENCY—contd.															
Anand, Emery Hospital .	S. A.	3	..	11	..	1	1	..	..	X-Ray	1	1,397	62	40	..
Anand, Mission Hospital .	I. P. M.	1	2	3	..	..	..	1	..	X-Ray	..	131	..	..	4

## MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

## Women's, Children's and General Hospitals—contd.

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENTS.			FINANCIAL.				DOCTORS.	
						Individuals treated.	Total Treatments.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Current Expenses.	Foreign.	National.
										Government.	Municipal.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
BOMBAY PRESIDENCY—contd.														
Farodia, Mrs. William Butler Memorial Hospital.	M. E. C.	General	65	693	10,133	8,326	..	Tours	Rs. 5,714	..	..	Rs. 19,662	1	..
Borsad, Roberts Hospital.	I. P. M.	Women and Children.	56	538	10,349	3,026	33,260	..	8,997	..	..	14,341	1	1
Broach, Zeunana Mission Hospital and Maternity Home.	I. P. M.	"	37	526	..	2,155	5,841	..	10,290	..	..	18,000	1	..
Bulsar, Brothers Mission Hospital.	C. B. A.	General	24	597	8,105	6,298	27,323	..	30,728	..	..	35,431	2	..
Dehaan, Mission Hospital.	C. B. A.	"	31	654	7,042	4,820	18,871	Tours	11,530	..	..	15,675	1	1
Dhond, Ashwood Memorial Hospital.	Au. C. C. M.	"	20	320	3,511	3,026	9,434	..	7,140	..	..	16,540	1	1
Dhulia, Mission Hospital.	P. M. M.	Women and Children.	20	162	4,877	3,538	12,623	Tours	2,156	..	..	7,906	1	1
Gadag-Badgeri, Basel Mission Hospital.	B. E. M.	General	84	1,349	26,380	9,939	39,155	..	22,478	..	..	24,668	1	1
Kolhapur, Mary E. Wantless Hospital.	A. P. M.	Women and Children.	35	727	..	5,957	14,742	..	13,029	..	..	23,195	1	1
Lusadia, Mission Hospital and Dispensary.	C. M. S.	General	12	..	..	6,550	13,142	..	320	..	..	3,185	..	1
Miraj, Medical School Hospital.	A. P. M.	"	267	2,503	..	31,651	99,497	..	1,81,966	..	..	1,65,313	2	2

Kadiad, Tholarn Memorial Hos- pital.	M. E. Ch.	120	2,632	...	10,683	19,844	..	60,000	..	..	2	1
Kesik, Canada Hospital	Z. B. M. M.	98	1,018	..	2,911	9,083	..	..	..	..	3	1
Nipani, Lafayette Hospital	A. P. M.	15	378	..	5,472	14,003	..	..	..	5,025	..	1
Panharpur, Women's Hospital	P. I. V. M.	25	296	..	5,123	18,520	Tours	5,000	..	6,000	..	2
Poona (Panch Howd.), St. John's Hospital and Dispensary.	C. S. M. V.	40	1,067	14,722	4,326	14,088	..	4,000	500	11,441	..	1
Poona, St. Margaret's Hospital	C. of S. M.	116	1,357	..	7,668	12,542	..	..	..	36,643	2	1
Poona, N. M. Wadia Hospital	C. of S. M.	90	2,000	..	2,000	25,000	Tours	17,200	1,450	38,000	1	1
Sankeshwar, Mission Hospital	C. M. M. L.	20	365	1,825	3,764	10,720	Tours	2,768	..	3,768	1	1
Vengurda, St. Luke's Hospital	A. P. M.	100	1,352	..	3,287	11,043	In Schools	77,280	..	86,626	2	3
Vita, Mission Hospital and Dis- pensary.	A. P. M.	10	423	..	3,508	7,491	..	..	..	..	1	..
Wai, Willis F. Pierce Memorial Hospital.	A. M. M.	80	1,532	25,404	9,406	18,033	..	17,832	..	20,332	3	2
CENTRAL INDIA.												
Chhatrapur, Hospital for Women and Dispensary.	A. F. M.	25	214	..	2,477	18,096	..	..	..	6,000	1	1
Thar, Canada Women's Hospital	U. C. C. M.	30	535	7,828	6,768	26,600	..	1,800	..	10,688	1	..
Hat-Pipia, Mission Hospital	U. C. C. M.	30	1,081	8,095	5,451	12,934	..	1,500	..	9,600	1	..
Indore, Women's Hospital	U. C. C. M.	92	1,867	22,625	11,405	26,026	..	9,665	..	24,718	1	1
Johat, St. Andrew's Hospital	C. P. M.	50	463	5,365	5,850	7,867	..	880	..	20,000	1	1
Kemuch, Women's Hospital and Dispensary.	U. C. C. M.	50	630	7,860	5,374	18,843	..	3,000	..	11,352	1	1
Rudlam, Mission Hospital	U. C. C. M.	65	1,669	19,880	11,286	38,150	..	11,633	..	18,885	1	2
CENTRAL PROVINCES.												
Bilaspur, Jackson Memorial Hospital and Dispensary.	D. C. I. M.	65	1,400	26,879	3,357	27,296	..	11,268	..	16,236	1	1
Bina, Hospital and Dispensary	D. C. M. S.	10	56	536	18,715	32,145	Chapels	1,240	300	10,000	..	1
Champa, Christian Hospital	G. C. M. M.	30	452	4,719	9,746	17,880	..	2,700	..	9,900	2	1



MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.**Women's, Children's and General Hospitals—contd.*

Location and Name of Institution.	Control.	Type of Service	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal combined.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
BOMBAY PRESIDENCY— <i>contd.</i>																	
Baroda, Mrs. William Butler Memorial Hospital.	M. E. C.	General	1	7	15	..	..	..	..	..	..	..	13	98	..	..	55
Borsad, Roberts Hospital .	L. P. M.	Women and Children.	..	6	10	..	..	..	..	..	..	..	62	354	..	..	162
Breach, Zenana Mission Hospital and Maternity Home.	L. P. M.	"	1	..	11	4	..	..	..	..	..	..	37	103	..	..	342
Bulsar, Brothers Mission Hospital.	C. B. A.	General	1	2	..	..	1	..	..	..	..	..	71	477	..	..	44
Dahanu, Mission Hospital	G. B. A.	"	1	2	7	1	1	1	..	4	..	..	..	..	78	6	..
Dhond, Ashwood Memorial Hospital.	Au. C. G. M.	"	1	1	1	..	1	..	..	..	..	..	20	131	28	22	..
Dhulia, Mission Hospital .	P. M. M.	Women and Children.	..	1	..	..	1	..	..	..	..	..	22	246	7	10	..
Gadag-Betgeri, Bagel Mission Hospital.	B. E. M.	General	3	1	12	..	1	1	..	1	3	..	28	289	108	22	..
Kolhapur, Mary E. Wanless Hospital.	A. P. M.	Women and Children.	1	2	..	..	1	..	..	..	..	..	..	..	..	..	..
Lusadia, Mission Hospital and Dispensary.	C. M. S.	General	..	..	..	..	..	..	..	..	..	..	..	331	..	..	..
Miraj, Medical School Hospital .	A. P. M.	"	3	15	45	..	3	1	X-Ray	..	..	..	1,172	2,782	..	..	92

Hospital	M. E. Ch.	"	2	9	..	..	3	2	X-Ray	..	..	762	893	17	5	..
Nadad, Thoburn Memorial Hospital.	M. E. Ch.	Women and Children.	3	3	29	..	1	..	..	..	..	55	89	145	86	..
Nasik, Canada Hospital	Z. B. M. M.	General	..	..	..	..	..	..	..	..	..	285	193	14	21	..
Nipaul, Lafayette Hospital	A. P. M.	Women and Children.	1	2	..	..	..	..	..	..	..	205	..	13	7	..
Panharpur, Women's Hospital	P. I. V. M.	General	2	2	..	3	2	..	..	..	..	..	..	..	..	104
Poona (Panch Hovl), St. John's Hospital and Dispensary.	C. S. M. V.	Women and Children.	1	6	16	..	1	..	..	..	..	469	264	..	..	674
Poona, St. Margaret's Hospital	C. of S. M.	General	1	5	..	..	..	1	..	..	..	780	1,345	..	..	..
Poona, N. M. Wadia Hospital	C. of S. M.	"	2	2	..	..	..	..	..	..	84	425	..	..	48	..
Sankeshwar, Mission Hospital	C. M. M. I.	"	2	4	20	..	3	2	X-Ray	..	570	1,848	..	..	120	..
Venguria, St. Luke's Hospital	A. P. M.	"	1	..	..	..	1	..	..	..	1,023	..	..	2	1	..
Vita, Mission Hospital and Dispensary.	A. P. M.	"	2	5	8	..	2	1	X-Ray	..	585	794	..	..	128	..
Wai, Willis F. Pierce Memorial Hospital.	A. M. M.	Women	1	3	6	..	1	..	..	..	16	215	22	11	..	..
CENTRAL INDIA—contd.																
Chhatarpur, Hospital for Women and Dispensary.	A. F. M.	Women and Children.	..	4	..	..	..	..	..	..	19	204	88	27	..	..
Dhar, Canada Women's Hospital	U. C. C. M.	General	..	6	2	..	1	..	..	2	5	480	13	30	..	..
Hat-Pipla, Mission Hospital	U. C. C. M.	Women	2	3	14	..	3	..	5	3	18	158	..	..	439	..
Indore, Women's Hospital	U. C. C. M.	General	2	2	..	..	..	..	..	..	98	20	..	..	21	..
Jobat, St. Andrew's Hospital	C. P. M.	Women and Children.	..	1	7	..	1	..	1	2	54	367	26	45	..	..
Nemuch, Women's Hospital and Dispensary.	U. C. C. M.	General	1	3	16	..	4	1	X-Ray	..	228	318	40	20	..	..
Rudam, Mission Hospital	U. C. C. M.	Women and Children.	1	6	17	..	1	1	..	6	..	..	..	101	22	..
CENTRAL PROVINCES—contd.																
Bilaspur, Jackson Memorial Hospital and Dispensary.	D. C. I. M.	General	2	2	..	..	2	..	..	..	..	808	55	12	..	..
Bina, Hospital and Dispensary	B. C. M. S.	"	1	2	4	..	1	1	..	..	40	40	..	..	..	..
Champa, Christian Hospital	C. C. M. M.	"	..	..	..	..	..	..	..	3	..	..	..	..	..	..

MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*  
*Women's, Children's and General Hospitals—contd.*

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENTS.			FINANCIAL				DOCTORS.	
						Individuals treated.	Total in-patients.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Current Expenses.	Foreign.	National.
										Government.	Municipal.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>CENTRAL PROVINCES—<i>contd.</i></b>														
Chanda, Women's Hospital and Dispensary.	S. E. C. M.	Women and Children.	26	266	..	2,664	14,390	..	Rs. 1,464	..	Rs. ..	Rs. 10,000	..	1
Dhantari, Christian Hospital	A. M. M.	General	30	309	..	7,247	11,094	..	..	..	..	..	2	2
Itarsi, Mission Hospital	F. M.	"	32	397	..	8,071	19,503	Tours	..	..	..	12,000	2	1
Jagdalpur, Ruth Cunmin's Hospital.	M. E. Ch.	Women and Children.	10	371	1,981	5,100	11,821	..	298	679	..	2,901	1	..
Mungeli, Christian Hospital and Dispensary.	D. C. I. M.	General	35	802	..	..	4,903	Tours	5,290	..	..	11,390	1	2
Nagpur, Mure Memorial Hospital	C. of S. M.	Women and Children.	150	2,046	30,244	3,572	..	..	47,547	745	..	50,123	2	1
Seoni, Mission Hospital	U. O. of C. S.	General	12	156	286	3,481	27,926	..	793	600	..	4,392	1	..
Tilda, Evangelical Hospital	E. S. N. A.	"	56	7,199	18,250	5,649	11,810	..	7,863	..	..	19,228	2	1
<b>DELHI.</b>														
Delhi, St. Stephens Hospital	S. P. G. & C. M.	Women and Children.	140	2,632	..	16,236	35,832	..	17,537	..	..	55,247	3	2
<b>HYDRABAD.</b>														
Bidar, Mission Hospital	M. E. Ch.	General	45	1,121	..	85,294	77,890	Tours	8,036	..	..	10,000	..	2
Doodgaon, Mission Hospital	M. M. S.	Women	20	473	..	8,465	17,073	..	1,300	..	..	8,200	..	..

Hannamakonda, Victoria Memorial Hospital.	A. B. T. M.	General	60	711	7,055	6,220	10,000	..	4,519	..	..	13,608	1	2
Jaina, Mission Hospital	C. of S. M.	"	72	1,522	..	1,200	3,350	Tours	8,916	..	..	20,000	1	2
Karlanagar, Mission Hospital	M. M. S.	Women	54	954	..	..	22,300	"	4,317	..	..	13,981	1	1
Khananagar, St. Mary's Hospital	C. E. Z. M. S.	"	90	1,348	..	..	27,256	..	4,564	..	..	13,216	..	2
Luxettipet, Mission Hospital	W. M. M. S.	General	14	175	2,100	2,921	12,851	Tours	..	..	..	..	..	1
Madak, Mission Hospital	M. M. S.	"	100	1,260	..	12,988	24,534	..	6,418	..	..	..	..	2
Nizamabad, Wood Memorial Hospital.	M. M. S.	"	10	271	3,527	2,152	5,175	..	536	..	..	..	..	..
Soorlapet, Mission Hospital	A. B. T. M.	Women and Children	22	318	..	..	4,521	..	1,577	..	..	3,186	..	..
Vikarabad, Hukla Crawford Memorial Hospital.	M. E. Ch.	General	20	806	..	25,806	31,704	Tours	4,379	..	..	840	..	1
KASHMIR.														
Rainawari, Rainawari Hospital	C. M. S.	Women	60	600	14,065	10,832	..	Tours	6,440	1,600	..	15,366	1	1
Srinagar, Kashmir Mission Hospital.	C. M. S.	General	200	2,124	42,650	..	29,750	..	31,633	10,600	..	47,512	2	3
MADRAS PRESIDENCY.														
Alkida, Star of Hope Hospital	C. R. M.	General	24	350	4,176	2,595	9,050	Tours	2,523	..	..	8,082	1	1
Ambur, Bethesda Hospital	M. E. L. I.	"	20	152	..	7,021	16,748	..	1,367	..	..	8,006	1	1
Bhimavaram, Augustana Hospital	E. L. C. M.	"	20	476	4,103	2,561	8,647	..	5,070	..	..	6,016	1	..
Chennimalai, Herbert Prough Memorial Hospital.	L. M. S.	"	12	62	237	6,218	9,940	..	871	..	..	..	..	1
Chencole, Mission Hospital	C. R. M.	"	36	311	..	5,373	11,403	..	..	..	..	6,000	1	1
Combatore, Moss Channabaram Eye Hospital.	C. Sw. M.	Eye	35	622	..	8,402	54,922	..	5,966	..	1,500	9,822	..	2
Conjeevaram, C. of S. M. Hospital	C. of S. M.	General	45	2,046	..	10,504	32,110	..	8,892	..	..	13,131	1	1

MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*Women's, Children's and General Hospitals—*contd.*

Location and Name of Institution.	Control.	Type of Service.	NURSES			Qualified Midwives.	Qualified Compounders.	Qualified Laboratory Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Portug.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<i>CENTRAL PROVINCES—contd.</i>																	
Chanda, Women's Hospital and Dispensary	S. E. C. M.	Women and Children.	1	3	..	..	1	..	..	..	..	..	9	30	4	20	..
Dhantari, Christian Hospital	A. Mm. M.	General	1	1	..	..	1	1	..	4	1	1	75	316	..	..	..
Itarsi, Mission Hospital	E. M.	"	1	5	..	..	1	1	..	..	..	..	17	365	49	5	..
Jagdulpur, Ruth Cummin's Hospital.	M. L. Ch.	Women and Children.	..	1	..	..	..	..	..	..	..	..	9	138	..	..	..
Mungeli, Christian Hospital and Dispensary.	D. C. L. M.	General	1	3	..	..	..	..	..	..	..	..	190	591	..	..	..
Nagpur, Mure Memorial Hospital	C. of S. M.	Women and Children.	2	2	35	..	..	..	..	..	..	..	151	254	..	..	..
Seconi, Mission Hospital	U. O. of C. S.	General	..	..	..	..	1	..	..	..	..	..	..	155	1	1	..
Vilda, Evangelical Hospital	E. S. N. A.	"	2	2	10	..	2	1	X-Ray	..	..	..	527	417	11	9	..
<i>DIGLI—contd.</i>																	
Delhi, St. Stephens Hospital	S. P. G. & C. M.	Women and Children.	4	4	40	..	1	..	..	4	5	..	423	375	551	381	..
<i>HYDERABAD—contd.</i>																	
Bidar, Mission Hospital	M. E. Ch.	General	..	3	8	..	..	..	..	4	3	..	83	229	..	..	200
Doodgaon, Mission Hospital	M.M. S.	Women	2	2	..	..	..	..	..	..	..	..	6	42	54	6	..



MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.**Women's, Children's and General Hospitals—contd.*

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	Individuals treated.	OUT-PATIENT DEPARTMENTS.			FINANCIAL.				DOCTORS.	
							Total Treatments.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Expense—Current.	Foreign.	National.	
										Government.	Municipal.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
<b>MADRAS PRESIDENCY—<i>contd.</i></b>															
Dharmaparam, Methodist Mission Hospital.	M. M. S.	General.	30	382	5,048	7,024	31,053	Tours	Rs. 1,029	..	..	Rs. 10,370	1	..	
Erode, London Mission Hospital for Women and Children.	L. M. S.	Women and Children.	60	1,297	..	9,898	31,276	Lect.	9,861	..	..	22,713	21	1	
Giddalur, St. Raphael's Hospital.	S. P. G.	General	14	198	2,367	5,315	14,965	Tours	2,363	..	..	8,900	..	2	
Gudlavayur, Mission Hospital.	C. R. M.	"	12	279	..	2,655	9,847	..	..	..	..	2,500	..	2	
Guntur, Kugler Hospital.	U. L. C. M.	Women and Children.	125	2,674	23,215	10,246	23,923	..	27,957	..	..	30,871	1	3	
Talayarangudi, Emmanuel Hospital.	S. P. G.	General	27	265	3,431	4,062	23,839	..	1,435	600	..	3,246	..	1	
Ikkaadu, Ikkaadu Hospital.	M. M. S.	"	60	1,549	26,217	11,947	36,183	Tours	1,839	300	..	13,048	2	1	
Jannamalanchu, London Mission Hospital.	L. M. S.	"	70	1,420	..	21,919	36,165	"	6,706	..	..	19,583	..	4	
Kottai, Kottai Medical Mission Hospital.	K. M. M. B.	"	12	179	..	7,224	12,831	"	4,450	..	..	3,432	..	1	
Madanapalle, Mary Lott Lyles Hospital.	A. A. M.	Women and Children.	65	2,174	..	4,870	25,502	"	10,343	..	..	18,865	2	1	
Madras (Mylapur), Kalyani Hospital.	M. M. S.	General	145	2,369	..	14,630	43,963	..	31,894	..	..	27,047	1	3	
Madras (Rayapuram), Rainy Hospital.	C. of S. M. W.	Women and Children.	105	2,373	..	5,199	11,591	Camp	..	..	..	..	3	2	
Madura, Willis F. Pierce Memorial Hospital.	A. Md. M.	Men	50	746	17,672	11,193	40,067	Lect.	21,006	..	2,450	41,068	2	2	

Madura, American Madura Hospital for Women and Children.	A. Md. M.	139	3,470	37,514	63,500	10,738	545	15,070	3
Nagari, Nagari Hospital.	M. M. S.	30	1,374	13,771	51,349	..	..	..	1
Nandyal, St. Werburgh's Hospital.	M. M. S.	33	716	7,020	23,212	Tours	..	9,093	2
Narsapur, Godavari Delta Mission Hospital for Women and Children.	C. M. M. L.	26	397	..	14,135	Leet.	..	3,448	1
Nazareth, St. Luke's Hospital.	S. P. G.	40	831	..	59,218	..	..	14,137	2
Nellore, American Baptist Mission Hospital.	A. B. M.	114	1,818	22,111	53,434	..	..	30,737	2
Nidavalu, U. L. C. M. Hospital.	F. L. C. M.	16	474	..	7,309	Tours	..	12,661	2
Nidubrolu, The Jubilee Hospital for Women and Children.	Salvation Army	50	316	5,600	10,523	..	..	9,661	2
Nuzvid, Gifford Mission Hospital.	S. D. A.	45	624	..	20,000	..	..	23,500	2
Ongole, Clough Memorial Hospital.	A. R. M.	120	2,200	33,848	58,846	Impenda- tions.	..	36,437	2
Pasumalai, Caroline Clark Memorial Hospital.	Amer. Md. M.	20	204	1,174	24,814	..	..	2,364	1
Pithapuram, Bethesda Hospital.	C. B. M.	53	500	11,306	14,730	..	..	13,657	1
Pithapuram, C. B. M. Hospital for Women and Children.	C. B. M.	100	1,524	18,050	4,625	..	..	20,376	2
Rajamundry, U. L. C. M. Hospital.	U. L. C. M.	85	1,716	..	25,182	..	..	..	1
Ramnad, St. Martin's Hospital.	S. P. G.	60	1,692	18,300	10,235	..	630	10,868	2
Ranipet, Scudder Memorial Hospital.	Arcof Asm.	100	1,581	23,825	25,204	..	2,066	33,706	2
Renkunta, American Luther Hospital.	Amer. L. M.	49	424	7,936	5,916	Monthly tours.	..	17,565	1
Reutchitala, United Lutheran Hospital.	U. L. C. M.	45	635	..	14,816	Tours	..	7,060	2
Sholinghur, Goodlet Memorial Hospital.	Au. P. M.	35	14,223	..	..	Rural centres.	500	13,671	1
Tirukolur, Daglish Mission Hospital.	D. M. S.	64	1,335	21,693	37,628	..	..	28,262	2
Tirupattur, Mission Hospital.	C. R. M.	110	2,276	..	61,076	..	..	54,218	3
Udipi, Mission Hospital.	B. E. M.	75	805	24,237	21,035	..	..	19,651	1



## MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

## Women's; Children's and General Hospitals—contd.

Location and Name of Institution.	Control.	Type of Service.	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal combined.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MADRAS PRESIDENCY—contd.																	
Dharpuram, Methodist Mission Hospital.	M. M. S.	General.	1	4	..	..	1	..	..	..	..	..	39	84	23	21	..
Brode, London Mission Hospital for Women and Children.	L. M. S.	Women and Children.	1	4	13	..	1	..	..	..	1	..	426	..	99	73	..
Giddalur, St. Raphael's Hospital.	S. P. G.	General	1	3	..	..	1	..	..	..	..	..	21	179	25	5	..
Godlavaluru, Mission Hospital.	C. B. M.	"	..	1	..	..	..	..	..	..	..	..	..	53	25	48	..
Gumby, Kagler Hospital.	U. L. C. M.	Women and Children.	1	9	29	..	2	2	X-Ray	..	..	..	276	2,677	344	65	..
Idiayagudi, Emmanuel Hospital.	S. P. G.	General	..	1	..	..	2	..	..	..	..	..	11	249	32	7	..
Ikkadu, Ikkadu Hospital.	M. M. S.	"	1	2	97	..	1	..	..	1	..	..	89	1,132	186	115	..
Jammalnadugu, London Mission Hospital.	L. M. S.	"	1	16	5	..	3	1	..	..	..	..	197	..	23	30	..
Ketti, Ketti Medical Mission Hospital.	K. M. M. B.	"	..	2	..	..	1	..	..	..	..	..	23	220	37	11	..
Madanapalle, Mary Lott Lyles Hospital.	A. A. M.	Women and Children.	1	4	12	4	2	1	..	..	..	..	15	901	159	61	..
Madras (Aryapur), Kaliyandi Hospital.	M. M. S.	General	1	7	8	..	3	..	..	..	..	..	624	..	..	..	900
Madras (Rayapuram), Rainy Hospital.	C. of S. M. W.	Women and Children.	2	5	31	..	2	..	..	..	..	..	51	543	..	..	900
Madura, William F. Pierce Memorial Hospital.	A. M. M.	Men	1	6	1	..	5	..	X-Ray	..	..	..	88	1,498	..	..	..



# MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

## Women's, Children's and General Hospitals—contd.

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENTS.			FINANCIAL.				DOCTORS.	
						Individuals treated.	Total Treatments.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Current Expenses.	Foreign.	National.
										Government.	Municipal.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MADRAS PRESIDENCY—contd.									Rs.	Rs.	Rs.	Rs.		
Vellore, Women's Medical School Hospital.	Union of Twelve M.	Women and Children.	250	..	..	39,691	..	..	..	..	..	1,25,560	10	6
Vidyalakshmi, Danish Mission Hospital.	D. M. S.	General	12	460	..	6,998	22,452	..	..	..	..	10,701	..	2
Vuyyuru, Bothel Hospital	C. B. M.	Women and Children.	50	886	11,355	3,173	9,853	..	5,862	..	..	10,753	1	1
Worur, Methodist Mission Hospital.	M. M. S.	"	20	432	3,024	3,494	16,662	..	1,513	..	..	3,559	1	..
MYSORE.														
Bangalore . . . . .	C. E. Z. M. S.	Women and Children.	131	1,930	30,595	8,850	27,217	..	14,057	10,000	..	39,577	1	3
Chikka Baijapur, Wardlaw Thompson Hospital.	L. M. S.	General	70	1,238	21,350	12,605	24,897	Lect. and Tours.	7,884	..	..	23,243	1	2
Hassan, Redfern Memorial Hospital.	M. M. S.	Women and Children.	50	611	9,776	4,900	13,654	..	3,995	1,200	..	14,781	1	1
Kolar, Ellen Thorburn Cowen Memorial Hospital.	M. E. Ch.	General	104	1,258	20,104	15,308	44,777	Weekly Tours.	16,005	600	..	29,900	1	3
Mandagadda, Mission Hospital .	M. M. S.	"	17	281	3,462	553	1,717	..	1,718	1,200	..	9,485	..	1
Myore City, Holdsworth Memorial Hospital.	M. M. S.	Women and Children.	120	2,345	..	7,370	25,160	..	9,501	2,400	..	25,219	3	3

S. W. F. PROVINCE.

Banna, Pennel Memorial Hospital.	C. M. S.	113	1,522	..	21,536	90,459	Tours	6,987	..	24,329	2
Dera Ismail Khan, Reynell Taylor Hospital.	C. M. S.	56	500	1,784	4,006	22,256	..	1,490	..	8,290	1
Karak, Mission Hospital.	C. M. S.	12	148	..	..	..	..	..	..	..	..
Mardan, Mission Hospital.	D. P. M.	80	..	..	..	..	..	..	..	..	1
Peshawar, Afghan Mission Hospital.	C. M. S.	113	1,405	84,800	11,745	40,004	..	11,534	..	24,616	1
Tank, Zenana Mission Hospital.	C. E. Z. M. S.	65	975	..	8,748	16,892	Camps and Tours.	..	..	..	1
ORISSA.											
Berhaupur, Women's and Children's Hospital.	B. M. S.	81	1,234	..	3,868	21,137	..	..	..	16,572	1
Jharsagudab, Mission Hospital.	N. M. S.	..	..	..	..	..	..	..	..	..	..
Serango, Mission Hospital.	C. B. M.	10	113	1,619	15,884	23,607	..	1,000	1,000	9,437	1
PUNJAB.											
Ambala City, Philadelphia Hospital.	A. P. M.	50	600	..	4,000	17,621	..	..	..	14,000	2
Axyzisar, St. Catherine's Hospital.	C. E. Z. M. S.	100	1,491	..	7,860	23,444	..	..	..	23,000	1
Bhivani, Farrer Hospital.	R. M. S.	65	1,332	..	6,943	17,693	..	8,051	1,020	16,294	2
Chichoki, Mallan Mission Hospital.	S. D. A.	35	494	6,926	5,214	8,933	Tours	1,500	..	12,876	1
Gujarat, Don Memorial Hospital	C. of S. M.	35	583	5,804	5,637	15,540	Tours	3,397	..	11,763	2
Jagadhri, Mission Hospital	N. Z. P. M.	60	926	18,297	6,741	14,722	Tours	4,028	500	22,000	2
Jalapur-Jattan, Mission Hospital.	C. of S. M.	100	2,177	33,398	13,252	52,107	..	12,075	376	19,750	2
Jhelum, Good Samaritan Hospital.	A. U. P. M.	50	591	..	6,536	42,920	..	..	..	12,739	1
Kangra, Maple Leaf Hospital	M. S. C. C.	30	600	6,500	6,644	10,745	..	1,185	..	11,951	1

# MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

## Women's, Children's and General Hospitals—contd.

Location and Name of Institution.	Control.	Type of Service.	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CARES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Ab- normal con- fined.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MADRAS PRESIDENCY—contd.																	
Vellore Women's Medical School Hospital.	Union of Twelve M.	Women and Children.	4	16	53	..	4	3	X-Ray	7	5	2	226	633	243	186	..
Vrididachalam Danish Mission Hospital.	D. M. S.	General	..	2	..	..	..	..	..	..	..	..	15	473	420	8	..
Vuyyuru Bethel Hospital	C. B. M.	Women and Children.	1	5	..	..	..	..	..	..	..	..	..	308	135	93	..
Worur Methodist Mission Hospital.	M. M. S.	"	..	3	..	..	1	..	..	..	..	..	..		41	..	..
MYSORE—contd.																	
Bangalore	C. E. Z. M. S.	Women and Children.	3	8	20	..	..	..	..	..	..	..	6	123	..	..	124
Chikka Ballapura, Wardlaw Thompson Hospital.	L. M. S.	General	1	11	5	..	1	1	X-Ray	..	..	..	294	8,982	40	21	..
Haasan, Redfern Memorial Hospital.	M. M. S.	Women and Children.	1	4	7	..	2	..	..	..	..	..	54	185	..	..	74
Kolar, Ellen Thoburn Cowen Memorial Hospital.	M. E. Ch.	General	1	6	26	..	3	1	..	5	2	..	148	988	161	21	..
Mandagadda Mission Hospital	M. M. S.	"	1	3	2	..	..	..	..	..	..	..	9	54	20	14	..
Mysore City Holdsworth Memorial Hospital.	M. M. S.	Women and Children.	2	12	20	..	2	..	..	4	2	..	270	283	327	113	..

N. W. F. PROVINCE—*contd.*

Banne, Pennel Memorial Hospital.	C. M. S.	General	2	10	2	1	1	..	..	..	2	..	546	16,665	32	59	..
Dera Ismail Khan, Reynell Taylor Hospital.	C. M. S.	"	1	4	2	..	1	..	..	..	1	..	373	1,805	..	..	..
Karak, Mission Hospital.	C. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mardan, Mission Hospital.	D. P. M.	Women and Children.	1	2	..	..	1	1	..	..	..	..	..	..	..	..	..
Peshawar, Afghan Mission Hospital.	C. M. S.	General	2	3	12	..	1	1	..	..	1	..	798	1,727	1	..	..
Tank, Zenana Mission Hospital.	C. E. Z. M. S.	Women and children.	1	3	..	..	1	..	..	..	..	..	161	255	38	13	..
ORISSA— <i>contd.</i>																	
Berhampur, Women's and Children's Hospital.	B. M. S.	Women and Children.	2	6	13	..	1	..	..	..	2	2	91	102	270	30	..
Jharsagudah, Mission Hospital.	N. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Serango, Mission Hospital.	C. B. M.	General	1	..	..	..	3	..	..	..	..	..	3	140	4	..	..
PUNJAB— <i>contd.</i>																	
Ambala City, Philadelphia Hospital.	A. P. M.	General	2	4	20	..	1	1	..	..	3	..	57	153	26	41	..
Amritsar, St. Catherine's Hospital.	C. E. Z. M. S.	Women and Children.	2	3	16	..	2	..	..	..	6	..	185	323	84	162	..
Bhawal, Farrer Hospital.	B. M. S.	General	2	2	23	..	1	1	..	..	5	4	186	506	146	74	..
Chichoki, Mallian Mission Hospital.	S. D. A.	"	1	..	7	..	..	..	..	..	..	..	64	744	..	..	1
Gujarat, Don Memorial Hospital.	C. of S. M.	Women and Children.	1	3	4	..	1	..	..	..	..	..	56	332	16	16	..
Jogindri, Mission Hospital.	N. Z. P. M.	General	1	4	8	..	..	1	..	..	..	1	263	860	..	..	..
Jalapur-Jattan, Mission Hospital.	C. of S. M.	"	..	..	..	..	2	1	..	..	..	..	1,188	1,181	..	1	..
Jhelum, Good Samaritan Hospital.	A. U. P. M.	"	1	4	10	8	..	..	..	..	1	..	..	..	..	..	..
Kangra, Maple Leaf Hospital.	M. S. C. C.	Women and Children.	1	3	..	..	1	..	..	..	..	..	26	154	26	37	..

## MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

## Women's, Children's and General Hospitals—Contd.

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENTS.			FINANCIAL.				Doctors.	
						Individuals treated.	Total monthly.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Current Expenses.		
										Government.	Municipal.		Foreign.	National.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PUNJAB—contd.														
Ludhiana, Memorial Hospital, Ludhiana.	W. C. M. C.	Women	240	8,740	..	46,018	105,389	..	Rs. 45,182	Rs. 51,090	..	Rs. 1,22,310	11	14
Montgomery, Nancy Fulwood Hospital.	A. R. P. M.	"	30	474	..	1,732	4,672	..	..	600	..	4,292	1	1
Multan, Mission Hospital	C. M. S.	Women and Children.	100	1,980	26,730	11,671	48,303	Tours	18,103	..	240	15,445	2	..
Faisampur, St. Luke's Hospital.	M. S. C. C.	General	30	250	7,206	6,368	16,192	..	1,800	..	..	10,146	..	1
Faisal, Mission Hospital for Men	B. M. S.	Men	28	377	6,213	21,547	33,617	..	1,304	1,665	..	17,186	1	1
Faisal, Rahimpur, Women's Hospital.	B. M. S.	Women	73	1,153	18,907	6,342	20,113	..	8,516	2,575	..	30,708	2	1
Pasrur, Mission Hospital	A. U. P. M.	Women and Children.	30	1,542	..	4,037	6,037	..	8'0	..	..	7,524	..	1
Siakot, Memorial Hospital	"	Women	85	1,480	..	11,456	..	Tours	14,482	2,213	..	46,366	2	3
RAJPUTANA.														
Ajmer, Mission Hospital	C. of S. M.	Women and Children.	65	1,234	..	5,632	10,265	..	..	..	..	15,548	2	1
Banswara, Sharan Sthan Hospital.	U. C. C. M.	General	36	1,108	10,681	14,890	24,362	..	6,597	..	..	10,610	..	1
Dholpur, Sri Kilar	B. M. S.	Women and Children.	52	730	..	10,200	23,100	..	3,166	9,000	..	15,643	1	1

Nasirabad Cantonment Mission Hospital.	C. of S. M.	30	814	..	..	..	..	9,600	1,200	..	12,434	..	..	2
Udaipur, Mission Hospital.	"	25	450	...	14,334	..	..	1,963	..	..	12,251	1	1	1
TRAVANCORE.														
Cherazhikhal St. Thomas Hospital.	M. T. S. C. M. M.	20	300	..	3,652	..	..	1,790	..	..	2,368	..	..	1
Nagercoil, Catherine Booth Hospital and Orphanage.	S. A.	273	4,838	43,632	27,599	..	3	54,377	2,963	..	74,500	1	7	7
Neyyoor, South Travancore Medical Mission.	L. M. S.	386	8,150	1,09,500	1,58,337	..	..	1,08,062	2,123	..	1,84,318	2	19	19
UNITED PROVINCES.														
Akbarpur, Mission Hospital.	M. M. S.	20	284	..	4,479	13,569	Tours	500	100	..	4,283	..	..	1
Asanagarh, Christian Hospital for Women.	"	40	602	..	2,401	10,091	..	1,401	..	..	9,257	..	..	1
Bareilly, Clara Swain Hospital.	M. E. Ch.	80	800	10,363	4,273	13,407	..	11,176	300	..	28,390	2	2	2
Cawnpore, St. Catherine Hospital.	S. P. G.	75	915	..	3,791	10,544	..	2,927	1,200	..	29,127	2	..	..
Fatehgarh, Memorial Hospital.	A. P. M.	100	1,400	20,142	7,059	18,003	..	14,691	1,924	..	28,993	2	1	1
Fatehgarh, Lilly Lyle Broadwell Hospital.	W. U. M. S.	45	448	7,571	7,080	20,250	..	3,546	..	..	19,063	1	1	1
Jhansi, Ackerman-Hayt Hospital.	"	50	751	9,434	2,807	18,223	..	6,683	..	..	26,121	2	2	2
Kachwa, Mission Hospital and Dispensary.	B. G. M. S.	100	1,233	..	32,598	67,047	Tours	5,951	..	..	45,601	2	1	1
Kasganj, Mission Hospital.	A. P. M.	32	835	9,408	5,836	11,243	Tours	6,866	1,215	..	9,571	1	1	1
Landout, Community Hospital.	L. C. H. A.	22	177	1,800	..	2,701	..	15,350	..	..	14,633	1	1	1
Lalitpur, Harriot-Benson Memorial Hospital.	R. F. C.	25	600	3,000	15,000	48,000	..	..	..	..	18,640	1	1	1
Lucknow, Lady Kinaird Memorial Hospital.	Z. R. M. M.	60	2,320	..	15,807	38,846	Tours	32,116	2,000	..	40,931	2	3	3
Muradabad, Thomas Emery Hospital.	S. A.	50	635	..	2,714	10,982	Tours	9,772	..	..	24,822	1	1	1



# MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*

## Women's, Children's and General Hospitals—*contd.*

Location and Name of Institution.	Control.	Type of Service.	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PUNJAB— <i>contd.</i>																	
Ludhiana, Memorial Hospital, Ludhiana.	W. O. M. C.	Women	7	11	65	..	3	..	..	70	22	1	554	2,895	924	147	..
Montgomery, Nancy Fulwood Hospital, Mukian, Mission Hospital.	A. B. P. M. C. M. S.	" Women and Children.	..	..	3	..	1	..	..	..	..	..	..	..	20	12	..
Palampur, St. Luke's Hospital.	M. S. C. C.	General	1	4	..	1	..	..	..	..	..	..	10	91	..	..	31
Palwal, Mission Hospital for Men.	B. M. S.	Men	1	1	3	..	2	1	X-Ray	..	4	..	40	1,148	..	..	..
Palwal Bahmapur, Women's Hospital.	B. M. S.	Women	2	2	12	..	1	1	..	5	2	..	255	224	96	23	..
Parasur, Mission Hospital.	A. U. P. M.	Women and Children.	..	2	..	1	1	..	..	..	..	..	..	240	36	20	..
Sialkot, Memorial Hospital.	"	Women	2	5	20	..	1	..	..	4	..	..	20	1,208	251	82	..
RAJPUTANA— <i>contd.</i>																	
Ajmer, Mission Hospital.	C. of S. M.	Women and Children.	1	5	15	..	1	..	..	..	..	..	115	247	186	119	..
Barwara, Sharan Sthan Hospital.	U. C. C. M.	General	1	5	5	..	2	..	..	..	..	..	48	529	65	27	..
Dholpur, Sri Kwar.	B. M. S.	Women and Children.	1	2	14	..	1	..	..	..	..	..	74	287	140	8	..

Nainbad, Cantonment Mission Hospital.	C. of S. M.	"		4	10	1	1	..	..	136	534	..	..	157
Udaipur, Mission Hospital	"	General	..	1	..	6	..	..	..	123	1,640	..	..	..
TRAVANCORE— <i>contd.</i>														
Cherazhikel, St. Thomas Hospital.	M. T. S. C. M. M.	General	..	4	..	1	..	..	..	41	190	..	15	..
Nagercoil, Catherine Booth Hospital and Out-stations.	S. A.	"	6	13	8	6	..	..	..	1,624	5,858	..	..	378
Neyyoor, South Travancore Medical Mission.	L. M. S.	"	3	14	49	20	3	..	..	3,001	9,682	..	..	..
UNITED PROVINCES— <i>contd.</i>														
Akharpur, Mission Hospital	M. M. S.	Women	1	2	..	1	..	..	..	19	65	12	9	..
Azangarh, Christian Hospital for Women.	"	"	1	1	6	1	..	..	..	..	105	9	12	..
Bareilly, Clara Swain Hospital.	M. E. Ch.	"	1	5	15	1	..	..	..	17	281	..	..	81
Cawnpore, St. Catherine Hospital	S. P. G.	Women and Children.	1	3	18	1	..	2	..	66	220	114	58	..
Fategarh, Memorial Hospital.	A. P. M.	General	1	3	14	..	1	..	4	..	..	35	210	..
Fatehpur, Lilly Lyle Broadwell Hospital.	W. U. M. S.	Women and Children.	2	3	14	1	1	..	..	50	302	29	16	..
Jhansi, Ackerman-Hayt Hospital	"	"	1	5	19	..	1	3	..	9	194	82	17	..
Kachwa, Mission Hospital and Dispensaries.	B. G. M. S.	General	5	5	9	2	1	..	2	721	1,055	..	..	255
Kasganj, Mission Hospital	A. P. M.	"	..	3	2	..	1	..	..	30	105	..	..	89
Landour, Community Hospital.	L. C. H. A.	"	2	2	..	1	..	..	..	33	112	..	..	10
Lalitpur, Harriot-Benson Memorial Hospital.	R. F. C.	"	..	5	..	1	1	..	..	12	26	8	2	..
Lucknow, Lady Kinnaird Memorial Hospital.	Z. B. M. M.	Women and Children.	2	11	14	3	1	..	..	354	154	..	..	819
Moradabad, Thomas Emery Hospital.	S. A.	General	3	3	..	1	1	..	..	85	251	13	3	..

# MISSION MEDICAL INSTITUTIONS IN INDIA.

## Dispensaries.

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENT.			FINANCIAL.				DECEASED.		
						Individuals treated.	Total treatments.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Current Expenses.	Foreign.	National.	
										Government.	Municipal.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
ASSAM.															
Churachandpur, North East India General Mission Dispensary.	N. E. I. G. M.	General	..	..	..	..	..	..	Rs. 1,400	350	..	2,533	..	1	
Kangpokpi, Hospital and Dispensary.	A. B. F. M. S.	"	10	200	2,200	..	..	..	600	2,400	..	5,600	..	..	
Khanpi, Dispensary.	N. E. I. G. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	
Patpuithum, Dispensary.	N. E. I. G. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	
Behilangchhip, Dispensary.	N. E. I. G. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	
Belkum-Darlong Dispensary.	N. E. I. G. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	
Fiangpidung, Dispensary.	N. E. I. G. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	
Hanship, Dispensary.	N. E. I. G. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	
Tinsuang, Dispensary.	N. E. I. G. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	
BEHAL.															
Bongaon, Dispensary.	Salvation Army	General	..	..	..	5,142	7,772	..	2,822	..	..	2,822	..	1	



# MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

## Dispensaries—contd.

Location and Name of Institution.	Control.	Type of Service.	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Laboratory Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal combined.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
ASSAM— <del>contd.</del>																	
Churachandpur, North East India General Mission Dispensary.	N. E. I. G. M.	General	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..
Kangpokpi, Hospital and Dispensary.	A. B. F. M. S.	"	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Kharpi, Dispensary.	N. E. I. G. M.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Patpithum, Dispensary.	N. E. I. G. M.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Behliagchhip, Dispensary.	N. E. I. G. M.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Belkum, Darlong Dispensary.	N. E. I. G. M.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Fiangpidung, Dispensary.	N. E. I. G. M.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Harehip, Dispensary.	N. E. I. G. M.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Tisnang, Dispensary.	N. E. I. G. M.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
BEHAL— <del>contd.</del>																	
Bogason, Dispensary.	Salvation Army	General	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..



# MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*

## Dispensaries—*contd.*

Location and Name of Institution.	Control.	Type of Service.	Beds—Rented Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENT.			FINANCIAL.				Deductions.	
						Individuals treated.	Total Treatments.	Type of Health Service.	Fees and Gifts from patients.	Government.	Municipal.	Total Current Expenses.	Foreign.	National.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
BOMBAY PRESIDENCY— <i>contd.</i>														
Kopergaon, Dispensary	M. E. Ch.	General							Rs.	Rs.	Rs.	Rs.		
Mulktipur, Dispensary	S. A.	"	4			4,604	5,639		2,151			2,126		
Nanded, Dispensary and Convalescent Hospital.	C. S. M. V.	"	15			2,075	5,321							
Nasapur, Scandinavian Mission Dispensary.	S. A. M. N. A.	"	4	38	246	6,750			850			1,650		
Parantij, Dispensary	I. P. M.	"	7	103		1,091	6,978		700			1,945		
Phaltan, Dispensary	P. I. V. M.	"				5,000	7,060							
Poona, Christa Seva Sangha Dispensary.	C. S. S. A.	"	6	48	287		2,732		165			1,015		
Puntamba, Boken Bruere Memorial Dispensary.	M. E. Ch.	"				2,751	4,385		1,605			2,917	1	
Sanjan, Dispensary	A. W. M. M.	"					427							
Vadala, Dispensary	A. M. M.	"					4,987							





## MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

## Dispensaries—contd.

Location and Name of Institution.	Control.	Type of Service.	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Laboratory Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CARE.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal combined.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>BOMBAY PRESIDENCY—contd.</b>																	
Kopergaon, Dispensary	M. E. Ch.	General	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Munkitpur, Dispensary	S. A.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Nanded, Dispensary and Convalescent Hospital	C. S. M. V.	"	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Navapur, Scandinavian Mission Dispensary.	S. A. M. N. A.	"	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Parantli, Dispensary	I. P. M.	"	..	..	..	..	1	..	..	..	1	..	..	41	..	..	..
Phaljan, Dispensary	P. I. V. M.	"	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poona, Christa Seva Sangha Dispensary.	C. S. S. A.	"	..	..	..	..	..	..	..	..	..	..	5	156	..	..	..
Puntamba, Bowen Breare Memorial Dispensary.	M. E. Ch.	"	..	1	2	..	..	..	..	..	..	..	9	34	..	..	..
Sanjan, Dispensary	A. W. M. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vadala, Dispensary	A. M. M.	"	..	..	..	..	..	..	..	..	..	..	..	167	18	8	..



## Dispensaries—contd.

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENTS DEPARTMENT.			FINANCIAL.				DOCTORS.	
						Individuals treated.	Total Consults.	Type of Health Service.	Fees and Gifts from patients.	Grants.		Total Current Expenses.	Foreign.	National.
										(Government.)	(Municipal.)			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CENTRAL PROVINCES—contd.														
Shahpur, Dispensary	E. N. M. S. S.	General	..	..	..	..	..	..	Rs.	Rs.	Rs.	Rs.	..	..
Sihawa, Dispensary	A. M. M.	"	2	47	..	3,913	..	..	..	..	..	..	1	..
Umbri, Dispensary	F. M. C.	"	..	..	..	1,700	2,000	..	7,853	..	..	19,228	2	1
Wan, Dispensary	F. M. C.	"	..	..	..	..	1,000	..	..	..	..	..	..	..
HYDERABAD.														
Nagar-Kurnool, Dispensary	A. M. B. M.	"	5	50	..	1,364	1,410	Tours	114	..	..	630	..	..
Papampet, Dispensary	M. M. S.	"	..	..	..	..	..	..	..	4	..	..	..	..
Sangareddi, Hospital and Dispensary.	M. M. S.	"	8	165	..	6,312	..	..	..	..	..	1,000	..	..
Wadaram, Dispensary	M. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	..
Wanaparti, Mission Dispensary	A. M. B. M.	"	5	..	..	..	2,928	..	512	..	..	1,890	..	..
KASHMIR.														
Khalade, Dispensary	M. M.	"	7	45	..	2,500	15,000	..	..	..	..	1,500	..	..

MADRAS PRESIDENCY.

Christanagarum, Mission Hos- pital and Dispensary.	S. P. G.	8	120	..	3,349	18,964	..	..	..	..	3,300	..	1
Dumagudon, Dispensary and Hospital.	C. M. S.	6	57	..	16,229	43,661	..	506	2,000	..	3,815	..	1
Kanakeral, Dispensary	C. M. M. L.	..	..	..	4,000	10,000	..	..	..	..	..	..	..
Khanjunal, Dispensary	S. P. G.	6	156	..	8,404	20,707	..	..	..	..	2,249	..	1
Kgalapuram, Dispensary	S. P. G.	7	..	..	3,645	18,014	..	..	..	..	1,755	..	1
Pungannur, American Arcot Mission Dispensary.	Amer. Ar. Mission.	3	..	..	1,194	3,112	Tours	600	..	..	2,167	1	..
Saldapet, Chingleput District Dispensary.	Amer. Advent. Mission.	..	..	..	..	8,545	..	..	..	..	3,151	1	..
Sawyerpuram, Mission Hospital and Dispensary.	S. P. G.	8	77	..	6,801	44,198	..	..	..	..	2,296	..	1
Sompetta, C. B. M. Dispensary	C. B. M.	7	66	..	3,244	10,550	..	1,220	..	..	4,010	1	..
Tinnanur, Chingleput Methodist Mission Dispensary.	M. M. S.	..	..	..	4,603	7,197	..	364	100	..	2,223	..	1
MYSORE.													
Bowringpet, Central Dispensary	M. R. Ch.	..	..	..	..	..	..	..	..	..	87,000	1	..
Hadva, Dispensary	M. M. S.	2	18	..	9,114	10,705	Tours	..	..	..	..	..	1

N. W. F. PROVINCE.

ORISSA.

Udayagiri, Moorshed Memorial Dispensary.	B. M. S.	..	..	..	..	..	Tours	200	..	..	7,055	2	..
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## Dispensaries—contd.

Location and Name of Institution.	Control.	Type of Service.	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Laboratory Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal combined.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>CENTRAL PROVINCES—contd.</b>																	
Shalpur, Dispensary	E. N. M. S. S.	General	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Shawa, Dispensary	A. M. M.	"	..	1	..	..	..	..	..	..	..	..	2	21	11	2	..
Umbri, Dispensary	F. M. C.	"	2	2	10	..	2	1	X-Ray	..	..	..	527	417	11	9	..
Wuu, Dispensary	F. M. C.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
<b>HYDERABAD—contd.</b>																	
Nagar-Kurnool, Dispensary	A. M. B. M.	"	1	..	..	..	..	..	..	..	..	..	..	..	12	..	..
Papanaspet, Dispensary	M. M. S.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Sangareddi, Hospital and Dispensary.	M. M. S.	"	1	1	..	..	1	..	..	..	..	..	..	91	10	5	..
Wadiaram, Dispensary	M. M. S.	"	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wanaparti, Mission Dispensary	A. M. B. M.	"	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>KASHMIR—contd.</b>																	
Khalate, Dispensary	M. M.	"	..	..	..	..	..	..	..	..	..	..	40	100	6	1	..



MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*Dispensaries—*contd.*

Location and Name of Institution.	Control.	Type of Service.	Beds—Rated Capacity.	In-patients.	In-patients' Days.	OUT-PATIENT DEPARTMENTS.			FINANCIAL.				DOCTORS.	
						Individuals treated.	Total Treatments.	Type of Health Service.	Fees and Gifts	Grants.		Total Current Expenses.	Foreign.	National.
										Government.	Municipal.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>PUNJAB.</b>														
Bathleleem, Dispensary . . . . .	N. M. S.	General	..	..	..	..	10,860	..	..	Rs. ..	Rs. 300	Rs. 7,001	..	..
Clarkabad, Women's Dispensary . . . . .	C. M. S.	Women	..	..	..	5,207	19,781	Tours	739	883	..	1,971	..	..
Clarkabad, General Dispensary . . . . .	C. M. S.	General	8	70	770	4,630	19,870	Village visit <sup>g</sup> .	204	..	340	4,400	..	1
Dirug, Dispensary . . . . .	C. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	..
Lahore, Dispensary . . . . .	A. P. M.	"	..	..	..	..	27,000	..	1,983	..	..	4,200	1	1
Montgomerywala, Dispensary . . . . .	C. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	..
Narowal, Dispensary . . . . .	C. E. Z. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	1
<b>RAJPUTANA.</b>														
Piploda, Piploda-Koral Dispensary.	C. of S. M.	"	2	16	..	1,847	6,700	..	220	..	..	1,476	1	..
<b>SIKIM.</b>														
La-chen Dispensary . . . . .	F. C. F. M.	..	..	..	..	600	..	..	..	..	..	..	..	..
La-Chung, Dispensary . . . . .	F. C. F. M.	..	..	..	..	1,200	..	..	..	..	..	..	..	..





# MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*

## Dispensaries—*concl'd.*

Location and Name of Institution.	Control.	Type of Service.	NURSES.			Qualified Midwives.	Qualified Compounders.	Qualified Laboratory Technicians.	X-Ray and Radium.	STUDENTS.			OPERATIONS.		OBSTETRICAL CASES.		
			Foreign.	National.	Student.					Midwives.	Compounders.	Laboratory Technicians.	Major.	Minor.	Normal.	Abnormal.	Normal and Abnormal combined.
1	2	3	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
PUNJAB—concl'd.																	
Bethlehem, Dispensary	N. M. S.	General	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Clarksbad, Women's Dispensary	C. M. S.	Women	1	1	..	..	1	..	..	..	..	..	1	102	..	..	..
Clarksbad, General Dispensary	C. M. S.	General	..	..	..	..	1	..	..	..	..	..	40	980	..	..	..
Drug Dispensary	C. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lahore, Dispensary	A. P. M.	"	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..
Montgomerywalla, Dispensary	C. M. S.	"	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Narawal, Dispensary	C. E. Z. M. S.	"	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
RAJPUTANA—concl'd.																	
Piploda, Piploda-Kor'n Dispensary.	C. of S. M.	"	1	..	..	1	1	..	..	..	..	..	2	70	..	..	28
SIKKIM—concl'd.																	
Le-shen, Dispensary	F. C. F. M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lo-Chung, Dispensary	F. C. F. M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..



MISSION MEDICAL INSTITUTIONS IN INDIA—contd.

*Tuberculosis Sanatoria.*

Location and Name of Institution.	Beds.	In-Patients.	Doctors.		Nurses.		Compounders.	Laboratory Technicians.	Students Training.	FINANCIAL.			Operations.	X-Ray.	Out-Patients.
			Foreign.	National.	Foreign.	National.				Rees.	Grants.	Budget.			
										Rs.	Rs.	Rs.			
<b>BIHAR.</b>															
Itki, Itki Sanatorium (1)	66	174	..	2	..	11	..	..	..	29,259	49,774	48,120	212	..	132
<b>BOMBAY.</b>															
Miraj, Sir William Wanless Tuberculosis Sanatorium (2).	132	325	1	4	1	8	1	1	..	50,000	..	58,000	525	Yes	500
Vengurla, Hillaide Sanatorium (3)	40	67	2	1	1	2	..	..	..	..	..	..	..	Yes	..
<b>CENTRAL PROVINCES.</b>															
Pendra Road, Mission Tuberculosis Sanatorium.	42	84	1	1	1	2	1	1	6	6,339	..	13,245	373	..	1,628

## MADRAS PRESIDENCY.

Arogyavaram, Union Mission Tuberculosis Sanatorium. (4)

Yes

..

1,41,405

30,589

1,40,468

..

1

1

11

2

6

1

625

233

Viranampuram, Tuberculosis Sanatorium

..

11

23,350

5,435

9,810

..

1

1

2

1

2

..

160

55

## MYSORE STATE.

Bangalore, Zenana Mission Tuberculosis Sanatorium. (5)

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..

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..

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..

..

50

## RAJPUTANA.

Tilaura, Mary Wilson Sanatorium

841

..

15,990

..

7,557

..

1

1

4

1

1

1

82

88

## PUNJAB.

Sanawat, Lady Irwin Tuberculosis Sanatorium.

655

30

16,168

(6)2,600

..

2

1

1

1

1

..

1

80

58

## UNITED PROVINCES.

Almora, Tuberculosis Sanatorium

..

9

10,747

3,360

4,389

5

..

1

1

1

..

1

53

36

(1) Conducted by the Government of Bihar.

(2) Three Co-operating Missions contribute Rs. 600 each annually. The only other contribution is that paid for salaries of Mission staff. The Sanatorium has been entirely self-supporting since 1934, with the exception of the contributions mentioned.

(3) Maintained and staffed by the St. Luke's Hospital, Vengurla.

(4) One foreign pathologist clergyman and one foreign matron additional staff.

(5) Maintained and staffed by the Zorana Mission Hospital for Women and Children, Bangalore.

(6) Grants through missions.

MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*

*Leprosy Hospitals and Homes.*

Location and Name of Institution.	Capacity.	No. of In-Patients.	RESIDENT DOCTORS.		VISITING DOCTORS.		NURSES.		Compounders.	OPERATIONS.		Out-Patients.	GRANTS.		Total Current Expenses.
			Foreign.	National.	Foreign.	National.	Foreign.	National.		Major.	Minor.		Government.	Mission to Lepers.	
ASSAM.															
Chabua, St. Luke's Hospital Lepers Ward. (1)	3	9	..	..	..	..	..	..	..	..	..	..	Rs. ..	Rs. ..	..
Jorhat, The Christian Hospital Lepers Colony.	90	90	..	..	..	..	..	..	..	..	..	..	..	500	..
Kangpokpi, Kangpokpi Mission Lepers Asylum.	120	..	1	..	..	..	1	1	1	..	..	..	2,400	..	5,600
BENGAL.															
Bankura, Lepers Asylum	..	261	..	..	..	..	..	..	..	..	..	..	..	..	..
Calcutta, C. M. S. Lepers Dispensary	..	..	2	..	..	..	..	..	2	..	..	573	(2) 5,700	..	7,698
Chandraghona, Arthington Hospital, Lepers Colony. (3)	40	40	..	..	..	..	..	..	..	..	..	..	..	1,318	..
Kalimpong, Charteris Hospital, Lepers Colony. (4)	112	91	..	..	..	..	..	..	..	..	..	..	..	..	..
Raniganj, Lepers Home	160	146	..	1	..	..	..	..	1	..	6	300	Yes	..	28,000



MISSION MEDICAL INSTITUTIONS IN INDIA—*contd.*

*Leper Hospitals and Homes—contd.*

Location and Name of Institution.	Capacity.	No. of In-Patients.	RESIDENT DOCTORS.		VISITING DOCTORS.		NURSES.		Compounders.	OPERATIONS.		Out-Patients.	GRANTS.		Total Current Expenses.
			Foreign.	National.	Foreign.	National.	Foreign.	National.		Major.	Minor.		Government.	Mission to Lepers.	
CENTRAL PROVINCES.															
Baitalpur, Leper Asylum and Hospital.	..	606	1	1	..	..	1	1	2	121	203	100	Yes	Yes	Rs. ..
Champa, Bethesda Leper Home . . .	..	597	..	..	..	..	..	..	..	..	..	..	..	..	..
Chandkhuri, Leper Hospital . . .	..	612	1	1	..	..	1	1	(8) 11	121	218	..	31,200	Yes	69,060
Dhantari, Leper Home . . .	..	423	..	..	..	..	..	..	..	..	..	..	..	..	..
Kothara, Kothara Leper Hospital . . .	..	294	..	1	..	..	..	(9) 3	1	16	152	15	11,339	8,812	20,150
Jhargaoon, Leper Home . . .	..	81	..	..	..	..	..	..	..	..	..	..	..	..	..
Mungeli, Victoria Leper Asylum (10) .	90	90	..	1	..	..	..	..	..	..	..	..	..	..	..
Rajnandgaon, Leper Home and Hospital. (11).	..	39	..	1	..	..	..	1	3	13	43	506	3,621	1,607	10,636
Raipur, Leper Home . . .	..	131	..	..	..	..	..	..	..	..	..	..	..	..	..
HYDERABAD.															
Dichpali, Leper Asylum and Hospital .	..	700	1	2	..	..	2	..	1	80	149	70	Yes	..	86,896





# MISSION MEDICAL INSTITUTIONS IN INDIA—*concl.*

## Leper Hospitals and Homes—*concl.*

Location and Name of Institution.	Capacity.	No. of In-Patients.	RESIDENT DOCTORS.		VISITING DOCTORS.		NURSES.		Compounders.	OPERATIONS.		GRANTS.		Total Current Expenses.
			Foreign.	National.	Foreign.	National.	Foreign.	National.		Major.	Minor.	Government.	Mission to Lepers.	
UNITED PROVINCES.														
Almora, Leper Home	..	88	..	..	..	..	..	..	..	..	..	..	..	..
Chandag, Leper Home	..	66	..	..	..	..	..	..	..	..	..	..	..	..
Meerut, Leper Home	..	59	..	..	..	..	..	..	..	..	..	..	..	..
Naini, Naini Leper Home and Hospital	..	575	1	1	1	..	..	..	1	12	135	42,900	34,315	95,062

(1) See St. Luke's Hospital figures for staff members.

(2) Calcutta Corporation grant.

(3) Arrington Hospital staff attending.

(4) See Charteris Hospital figures for staff members.

(5) Compounder in Training.

(6) Sankeshwar Mission Hospital staff attending.

(7) St. Luke's Hospital staff attending.

(8) Student compounders.

(9) Student nurses.

(10) Under the management of the Mungeli Area Christian Hospital.

(11) Four out-lying Dispensaries in addition to the Leper Home.

(12) The whole staff are mission employees except the Superintendent. Their emoluments are met by Government grants. The Mission to Lepers contributes to the Church of Scotland Mission towards the cost of Superintendent. All other maintenance charges are met by Government grants.

(13) Locally trained Nurses.

(14) Under the management of the Catherine Booth Hospital, Nagarcoll.

(15) Under the management of the South Travancore Medical Mission, Neyyoor.

(16) One foreign pharmacist.

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### **APPENDIX III.**

**STATISTICS REGARDING HOSPITALS AND DISPENSARIES •  
UNDER THE CONTROL OR SUPERVISION OF THE POLITICAL  
DEPARTMENT.**

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# HOSPITALS AND DISPENSARIES UNDER THE CONTROL OR SUPERVISION OF THE POLITICAL DEPARTMENT.

Name of Hospital or Dispensary.	By whom maintained.	Medical Staff.	No. of beds.	Daily average number of		Total number of patients treated during 1937		Total number of operations performed during 1937.		Approximate population and area served by hospital or dispensary.		Common diseases found.
				In-patients.	Out-patients.	In-patients.	Out-patients.	Major.	Minor.	Population.	Area.	
BURMESE.												
Civil Hospital, Nongong	Crown Representative and Indian States.	R. S. 1 S. A. S. 2.	98	57-33	195-64	1,834	28,497	531	769	14,68,238	Neighbouring States and part of U. P.	Malaria, Tuberculosis, Venereal Disease, Cataract.
INDOZ.												
Residency Hospital, Indore.	C. R.	Six	12	7-37	61-25	179	10,040	1	155	4,390	1-55 sq. miles.	
Malwa Bhil Corps Hospital, Indore.	C. R. and Regimental Funds.	S. A. S. 1 and R. S. 1 in visiting medical charge.	32	1-0	60-0	403	21,900	..	20	1,600	..	
Central India Agency, Jail Hospital, Indore.	C. R.	S. A. S. 1	16	3-35	25-92	129	9,463	1	60	300	..	
The Dady College Hospital, Indore.	College	S. A. S. 1	8	0-4	18-0	180	2,441	..	25	400	..	
Roberts Nursing Home, Indore.	Aided by C. R.	R. S. 1 and K. E. Hospital Staff.	8	8-33	1-11	90	422	3	15	..	..	
King Edward Hospital, Indore.	Do.	14	238	234-2	244-7	4,002	89,300	929	5,123	5,00,000	20,000 sq. miles.	Malaria, Pneumonia and Tuberculosis.
HYDERABAD (Deccan).												
King Edward Memorial Hospital, Secunderabad.	Local Fund	12	268	241-50	503-61	8,875	74,769	421	4,039	1,30,801	..	Malaria, Diseases of Digestive system, Bronchitis, Dysentery and Enteric Fever.



# HOSPITALS AND DISPENSARIES UNDER THE CONTROL OR SUPERVISION OF THE POLITICAL DEPARTMENT

contd.

Name of Hospital or Dispensary.	By whom maintained.	Medical Staff.	No. of beds.	Daily average number of		Total number of patients treated during 1937.		Total number of operations performed during 1937.		Approximate population and area served by hospital or dispensary.		Common diseases found.
				In-patients.	Out-patients.	In-patients.	Out-patients.	Major.	Minor.	Population.	Area.	
RAIPURANA.												
Adam's Memorial Hospital, Mount Abu.	C. R.	R. S. I. S. A. S. 2.	30	8-70	99-27	296	13,263	24	329	5,000	6 sq. miles.	Malaria and Pneumonia.
Residency Hospital, Jaipur	C. R.	S. A. S. 1	2	0-08	54-12	3	8,149	..	226	700	Residency Area	Malaria, Pneumonia, Respiratory diseases, Digestive diseases and Ophthalmia.
Residency Hospital, Udaipur	C. R.	R. S. I. S. A. S. 1.	6	0-59	49-38	11	4,818	..	150	1,000	3 sq. miles.	Malaria, Syphilis, Dysentery, Diarrhoea and Rheumatic fever.
Agency Dispensary, Bharatpur.	C. R.	S. A. S. 1	..	..	98-37	..	5,338	..	70	500	Agency and Civil Lines.	Malaria, Contagious, etc., Respiratory and digestive diseases.

C. R.—Crown Representative.

R. S.—Residency Surgeon.

S. A. S.—Sub-Assistant Surgeon.

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## **APPENDIX IV.**

**STATISTICS REGARDING HOSPITALS AND DISPENSARIES UNDER  
THE CONTROL OR SUPERVISION OF THE EXTERNAL AFFAIRS  
DEPARTMENT.**

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HOSPITALS AND DISPENSARIES UNDER THE CONTROL OR SUPERVISION OF THE EXTERNAL AFFAIRS DEPARTMENT.

Name of Hospital or Dispensary.	By whom maintained.	Medical Staff.	No. of beds.	Daily average number of		Total number of patients treated during 1937.		Total number of operations performed during 1937.		Approximate population and area served by hospital or dispensary.		Common diseases found.
				In-patients.	Out-patients.	In-patients.	Out-patients.	Major.	Minor.	Population.	Area.	
<b>BALUCHISTAN.</b>												
Civil Hospital, Quetta	C. G.	C. S. 1 A. S. 1 S. A. S. 6	100	54.79	261.47	2,052	50,674	261	934	34,801	540 Sqr. miles.	Diseases of digestive and respiratory system and eyes; Malaria and Ulcers of skin.
Four Rural Dispensaries	C. G.	S. A. S. 3	..	..	..	..	..	..	..	..	10 miles radius.	Malaria, Sand Fly fever, Pneumonia, Rheumatism and eye diseases.
Civil Hospital, Loralai	C. G.	Agency Surgeon 1 S. A. S. 2	46	24.66	146.55	1,073	28,559	60	976	3,000	..	
<b>GILGIT.</b>												
Civil and Scouts Hospital, Gilgit, and Hospitals and Dispensaries at—												
(1) Altabad												
(2) Nagar												
(3) Chalt												
(4) Singal												
(5) Ishkoman												
(6) Gupis												
(7) Yasin												
(8) Chilas												
	C. G.	Agency Surgeon 1 A. S. 1 S. A. S. 7	63	35.00	225.00	1,841	82,448	139	1,234	96,000	17,792 sq. miles.	Trachoma, Acacia infection.

## NORTH WAIRUSTAN.

	C. G.	Agency Surgeon 1 S. A. S. 1	16	36-19	111-09	711	23,824	107	1,275	1,40,000	65 x 60 miles.	Malaria and Gun shot wounds.
Civil Hospital, Miranshah.	C. G.	Agency Surgeon 1 S. A. S. 1	..	..	7-96	..	726	..	20	..	..	Ditto.
Khajuri (Bichi, Kaakhi) Dispensary.	C. G.	S. A. S. 1	..	..	54-93	..	13,818	..	596	..	..	Ditto.
Isak Dispensary	C. G.	..	..	..	26-10	..	7,808	..	87	..	..	Ditto.
Datta Khel Dispensary	C. G.	S. A. S. 1	..	..	27-69	..	4,829	..	76	..	..	Ditto.
Dosalli Dispensary	C. G.	S. A. S. 1	..	..	14-85	..	4,377	..	61	..	..	Ditto.
Spinwan Dispensary	C. G.	S. A. S. 1	..	..	20-39	..	2,193	..	39	..	..	Ditto.
Shewa Dispensary	C. G.	..	..	..	90-97	476	24,297	25	722	..	..	Ditto.
Bazmak Hospital	C. G.	A. S. 1	16	9-97	90-97	476	24,297	25	722	..	..	Ditto.
Miranshah Scout Hospital	C. G.	Agency Surgeon 1 and S. A. S. 3	70	26-40	15-85	683	2,213	13	326	..	..	Ditto.
Dosalli Scout Hospital	C. G.	S. A. S. 1	15	4-23	8-93	260	1,428	3	75	..	..	Ditto.
Ghiom Scout Hospital	C. G.	S. A. S. 1	10	1-85	13-10	8	141	..	..	..	..	Ditto.
Datta Khel Scout Hospital.	C. G.	S. A. S. 1	12	1-90	5-75	97	822	..	18	2,864	..	Ditto.
Spinwan Scout Hospital	C. G.	S. A. S. 1	16	1-67	6-40	78	765	..	27	..	..	Ditto.
Bichi-Kaakhi Scout Hospital.	C. G.	S. A. S. 1	10	1-69	7-37	18	137	..	7	..	..	Ditto.
Shewa Scout Hospital	C. G.	..	..	0-62	3-10	43	288	..	5	..	..	Ditto.
Camp Hospitals	C. G.	..	..	2-36	15-18	181	1,386	..	30	..	..	Ditto.

C. G.—Central Government.

C. S.—Civil Surgeon.

A. S.—Assistant Surgeon.

B. A. S.—Sub-Assistant Surgeon.



# HOSPITALS AND DISPENSARIES UNDER THE CONTROL OR SUPERVISION OF THE EXTERNAL AFFAIRS DEPARTMENT—*contd.*

Name of Hospital or Dispensary.	By whom maintained.	Medical Staff.	No. of beds.	Daily average number of		Total number of patients treated during 1937.		Total number of operations performed during 1937.		Approximate population and area served by hospital or dispensary.		Common diseases found.
				In-patients.	Out-patients.	In-patients.	Out-patients.	Major.	Minor.	Population.	Area.	
SOUTH WESTERN.												
Scots Hospital, Jandola. (Inside the Fort.)	C. G.	Agency Surgeon 1 and S. A. S. 3	100	21-58	13-39	511	1,431	8	178	762	..	Malaria and minor respiratory diseases.
Dispensaries for Scots	C. G.	S. A. S. 5	154	..	..	..	..	..	..	..	..	..
Civil Hospital, Jandola. (Outside the Fort.)	C. G.	Agency Surgeon 1 and S. A. S. 1	20	8-25	30-51	179	8,142	21	260	1,500	..	Malaria and minor respiratory diseases.
Civil Hospital, Wana	C. G.	S. A. S. 1	20	..	..	..	..	..	..	..	..	..
Civil Hospital, Saravogha	C. G.	..	6	..	..	..	..	..	..	..	..	..
KURAN.												
Civil Hospital, Parachinar	C. G.	Agency Surgeon 1 and S. A. S. 1	30	33-20	197-69	852	50,511	113	1,935	40,000	420 sq. miles.	Malaria, Gun shot and stab wounds, Phthisis, Ascari infection.
Militia Hospital, Parachinar	C. G.	S. A. S. 1	28	20-30	17-81	563	3,237	2	211	..	..	Ditto.
Civil Hospital, Sudda	C. G.	..	5	5-37	108-38	196	36,427	9	914	13,000	140 sq. miles.	Ditto.
Militia Hospital, Sudda	C. G.	..	4	0-39	4-86	23	1,305	..	17	..	..	Ditto.
Civil Hospital, Alisal	C. G.	S. A. S. 1	8	4-49	100-10	129	28,538	..	945	10,000	170 sq. miles.	Ditto.
Militia Hospital, Alisal	C. G.	..	4	2-31	4-21	86	1,054	..	117	..	..	Ditto.





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**APPENDIX V.**

**- REPORT ON THE WORK OF THE LHASA MEDICAL MISSION (1936-37.)**  
**BY CAPTAIN W. S. MORGAN, I. M. S.**

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## REPORT ON THE WORK OF THE LHASA MEDICAL MISSION, 1936-37.

The duties of the Medical Officer to the Lhasa Mission are two-fold—primarily he has to attend to the Mission Staff and their followers and secondly to minister to the wants of the local population. In Lhasa there are a few English-speaking Tibetans with a progressive outlook, and both these, their immediate entourage and the great majority of the inhabitants have acquired a faith in modern medical methods and generally are only too ready to submit themselves for treatment. This has engendered a feeling of confidence in them, that, whenever a Mission is present in Lhasa, their illness will receive adequate attention; and it may be said that one cannot exaggerate the feeling of gratitude, obviously sincere, that is evinced by patients of all classes. The Te Timpoche—from a purely spiritual standpoint, the senior lama in Tibet and one whose influence is immense, paid us a compliment worthy of record when he remarked that "the poor people tell me you are as kind to them as you are to the rich, and I am very pleased to hear it."

The scope offered is wide—Tibetans come from afar for treatment; time and distance mean nothing to them and consequently a hospital in Lhasa caters for a large area and huge population. There is according to our ideas no qualified medical man in Tibet; there is a Nepalese British subject, by vocation a dentist, who does his best to treat the more obvious conditions. As however the sum total of his knowledge is that which he has derived from us on the occasion of the present and former Missions, neither his knowledge nor experience can be considered as other than rudimentary. The Tibetan "Faculty of Medicine" has its headquarters in a little building on a hill above our camp at Dekyi Lingka; it is sponsored by the Tibetan Government and managed by the lamas. During the summer, the lama apprentices are for the most part absent gathering herbs on the hillsides: the collecting season being finished they return and by processes of distillation, etc., extract certain drugs, which they dispense with prayers during the rest of the year.

One might add that a large proportion of our patients came from the monasteries—the highest lama in Tibet and also the lowest consulted us; whether curiosity in some cases or a belief in us originally prompted their visits one does not know: but the fact remains that towards the end of our stay they gave us a great deal of help and support and were always on the best of terms with us.

The hospital was a converted barn, approached by one door through a filthy boiler house, a large part of the roof was open, there were no windows and the furnishings were grossly insufficient and very crude. This building served as an O. P. Department and housed all our equipment. There was no means of heating and in the cold weather it required a great deal of enthusiasm to do one's work in an atmosphere almost constantly below freezing point.

There was no In-Patient Department as such: what existed was the creation of patients, who either came from a great distance or whose disease was so severe as to preclude a daily visit to us, and was represented by various tents pitched in our grounds near the hospital: at one time about fifteen tents were present, thus representing a total of about thirty In-patients.

Our staff was small but adequate for in addition to the M. O. we had an S. A. S., the local dentist, two trained orderlies and a Tibetan lama—apprentice dresser: the latter was sent to us at the instigation of prominent Tibetans and with the priestly benediction of the senior lama-medico. On arrival on the 26th August, we had to fight a three days battle against a complete inertness on the part of the local authorities, but finally our building was, by our own efforts, put in a passable condition. Next day, patients appeared in large numbers, at first approximating to fifty a day, but as the hazar news of our presence became widespread, the new patients rose to nearly a 100 a day. These were mainly drawn from the lower and middle classes in Lhasa.

Within a short space of time, one had constant requests from prominent Tibetans to visit them to attend to their ailments, and soon afterwards the whole day was spent in hospital work in the morning and the "City round" in the afternoon. The Regent and his Staff, the various Cabinet Ministers, most of the ecclesiastical notables and nearly all the lesser officials consulted us at some time or other, and it must be said to their credit that they carried out our instructions with a complete lack of criticism and an attention to detail that was very gratifying indeed. Some had minor conditions easily dealt with in others a more serious state of affairs existed, which necessitated a lot of visiting, but in all cases they, in their peculiarly charming way expressed their thanks and, accompanying these latter with presents, often left the recipient in a very embarrassed state of mind indeed. Rai Sahib Bo Tsering, our S. A. S., and a past visitor to Lhasa, on many occasions has shown surprise at the amount of outside visiting done, saying it has been far greater in volume than on any past occasion.

There is a moderate amount of ophthalmic work and amongst the items of particular medical interest are the cases of cataract blindness, who appear from all directions: the majority of patients are elderly monks and up to February 17th, 33 enucleations (lens extractions) were performed, of which 31 were completely successful. One may note that our first case came

from Tsonga, 3 weeks journey from Lhasa on the Assam border and he had been waiting in Lhasa 3 months for our arrival: he was instrumental in sending us another case from the same area. Two other cases came from Khongpo in Northern Tibet—they had received news by the traders that they could be cured in Lhasa and immediately came a month's journey post-haste. Nevertheless it is curious to relate that no patient would give consent to have more than one eye operated upon: their excuses concerning the second eye were various—usually that a particularly holy lama told them that they could have one eye cured, but if the other was touched then their life would be shortened! But perhaps the real reason was that generally they were so excited at having their blindness relieved, that their enthusiasm to get back to their village or monasteries knew no bounds. Towards the latter part of our stay, all cataract cases were allowed to see a cinema show on guest evenings before leaving for home, but their amazement was such as to even dull their comprehension.

There was only a moderate amount of major surgery: there does not seem to be the glut of abdominal work in Tibet, that one encounters elsewhere—in fact, there is very little. What is more, whereas Tibetans have a greater fear of anaesthesia than they have of radical methods, it is only when they feel they are faced with no other alternative that they will give consent to operation. Of minor surgery there was an abundance and one always tried to do the necessary work under local anaesthesia if possible: we found that under these circumstances they very rarely demurred from surgical interference. Results fortunately were uniformly good— but owing to the appalling circumstances for attempting aseptic surgery, one always had the feeling that one was only just "getting away with it."

The demand for vaccination was constant and the Tibetans have implicit faith in its efficiency: Numerous tooth extractions were carried out, more particularly since the introduction of painless dentistry.

I am informed that whereas on past occasions the choice of cases has been limited, this year they are much wider than ever before: cases ranged from lamas who wanted their voices improved to the typical Lhasa lower class woman, who wanted her appearance improved by surgical lifting of her upper eyelid. Again indigestion is a widespread minor malady in Tibet and as constant attendance has made them familiar with our stock dyspepsia mixture, and almost daily occurrence was the demand for medicine "from that bottle."

In the Tsangpo Valley, there are villages where most men and every woman beyond the age of puberty is the subject of goitre: actually in Lhasa it is common enough, but symptoms are so few, that one only occasionally saw this type appear for treatment and unless the goitre was of enormous dimensions, they responded very rapidly. During the latter part of the stay and as the result of requests by certain English-speaking Lhasa notables, we fitted up simple medicine chests with the necessary full directions for use. They were greatly appreciated and afford a simple means of emergency treatment in the event of our ultimate departure from Lhasa.

Further activities extending to the training of a few Tibetan orderlies were prevented by time and other circumstances, but the Lhasa people were keen that we should do so and in the possibility of the present medical mission being continued, this is an important work, which should be undertaken. Finally, all in all, one feels that the medical effort has been a great success, both from a diplomatic and professional standpoint: and I should like to thank R. S. Bo Tsering (whose popularity with Lhasa people is immense) for his share in it.

*Hospital and General Statistics covering the period from August 29th, 1936 to February 16th, 1937.*

(1) Number of 'new' cases seen in the O. P. Department . . . . .	3,850
(2) Owing to our slender clerical resources, the number of Out-patient "attendances" cannot be given accurately, but easily exceeded . . . . .	20,000
(3) Number of In-patients . . . . .	215
(4) Number of syphilis cases treated . . . . .	1,320
(5) Number of major operations performed . . . . .	17
(6) Number of minor operations (excluding tooth extractions) . . . . .	128
(7) Number of 'cases' of tooth extractions . . . . .	430
(8) Number of lens enucleations (i.e., cataract operations)— of which 31 were completely successful . . . . .	33
(9) Vaccinations . . . . .	560
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*Note.*—No record was taken of the very considerable amount of "outside" work done by the M. O. and the S. A. S. in the City: had there been any such account kept then the present figures for items (1), (2), (3), (7) and (9) would have been greatly exceeded.



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